



SHORT RANGE TRANSIT PLAN

SFMTA.COM

Fiscal Year 2017 - Fiscal Year 2030



SFMTA
Municipal
Transportation
Agency

Federal transportation statutes require that the Metropolitan Transportation Commission (MTC), in partnership with state and local agencies, develop and periodically update a long-range Regional Transportation Plan (RTP), and a Transportation Improvement Program (TIP) which implements the RTP by programming federal funds to transportation projects contained in the RTP. In order to effectively execute these planning and programming responsibilities, MTC requires that each transit operator in its region which receives federal funding through the TIP, prepare, adopt and submit to MTC a Short Range Transit Plan (SRTP).

The preparation of this report has been funded in part by a grant from the U.S. Department of Transportation (DOT) through section 5303 of the Federal Transit Act. The contents of this SRTP reflect the views of the San Francisco Municipal Transportation Agency, and not necessarily those of the Federal Transit Administration (FTA) or MTC. San Francisco Municipal Transportation Agency is solely responsible for the accuracy of the information presented in this SRTP.

Approved by the SFMTA Board of Directors on June 6, 2017



TABLE OF CONTENTS

1. OVERVIEW OF THE SFMTA TRANSIT SYSTEM	7
Brief History	7
Governance	8
Transit Services	12
Overview of the Revenue Fleet	17
Existing Facilities	18
2. SFMTA GOALS, OBJECTIVES & STANDARDS	27
The SFMTA Strategic Plan	27
FY 2013 - FY 2018 Strategic Plan Elements	29
SFMTA Performance Measures	30
3. SERVICE & SYSTEM EVALUATION	35
Current Systemwide Performance	35
MuniTransit Service Structure	40
Muni Service Equity Policy	41
Equipment & Facilities	42
MTC Community-Based Transportation Planning Program	42
Paratransit Services	43
Title VI Analysis & Report	44
FTA Triennial Review	44
4. OPERATIONS PLAN & BUDGET	47
Operations Plan	47
Operations Budget	49
5. CAPITAL FINANCIAL PLAN	57
SFMTA Capital Planning Goals, Policies & Processes	57
SFMTA 10-Year Capital Financial Plan	57
Transit Capital Programs	60
Other SFMTA Capital Programs	84
6. MAJOR EXPANSION PROJECTS	89
Central Subway	89
Van Ness Bus Rapid Transit Project	93

DATA TABLES & FIGURES

BRIEF HISTORY

Figure 1. Key Transportation Milestones and Events in San Francisco	7
---	---

GOVERNANCE

Figure 2. SFMTA Organization Chart	9
Table 1. Budgeted Positions by Division	10
Table 2. SFMTA Collective Bargaining Agreements and Memorandums of Understanding	11

TRANSIT SERVICES

Figure 3. FY 2016 San Francisco Mode Split	12
Figure 4. San Francisco Municipal Railway Service Map	13
Table 3. Muni Transit Service Type and Areas	14
Table 4. Regional Transit Service Type, Areas, and Transfer Structure	15
Table 5. Muni Fare Changes	16
Table 6. Paratransit Fares	16

EXISTING FACILITIES

Figure 5. San Francisco Municipal Transportation Agency Facilities Map	18
Table 7. SFMTA Administrative, Operations, Maintenance, Fueling, Vehicle Storage and Staging Facilities	19
Table 8. SFMTA Stations and Stops	22
Figure 6. San Francisco Municipal Railway Service Map	23
Figure 7. San Francisco Bikeway Network Map	24

SFMTA PERFORMANCE MEASURES

Table 9. Strategic Plan Key Performance Indicators	31
Table 10. Transit Sustainability Project Annual Monitoring Process	32

CURRENT SYSTEMWIDE PERFORMANCE

Table 11. Transit Performance Indicators – National Transit Database audited annual data	36
Table 12. Additional Transit Performance Indicators - unaudited average annual data	37
Figure 8. Annual Boardings in Millions	38
Figure 9. Percent of Scheduled Trips Delivered	38
Figure 10. Mean Distance Between Failures	38
Figure 11. Percent On-Time Performance	38
Table 13. FY 2016 Muni Fixed Route Weekday Boardings by Line	39

MUNI TRANSIT SERVICE STRUCTURE

Table 14. On-Time Performance Definition	40
Table 15. Muni Service Plan Standard, by Route Type	40
Table 16. Muni Policy Headways, by Route Type	40
Table 17. Muni Stop Spacing Standards, by Vehicle Type	40
Table 18. Muni Passenger Load Standards, by Vehicle Type	40
Table 19. Average Maximum and Crowding Loads for Rubber Tire Fleet	41

FTA TRIENNIAL REVIEW

Table 20. 2016 FTA Triennial Review, Summary of Findings and Corrective Action Status	44
---	----

OPERATIONS PLAN

Table 21. Planned Levels of Service Systemwide	48
--	----

OPERATIONS BUDGET

Table 22. Summary of Revenues for FY 2016 Amended Budget and the FY 2017 and FY 2018 Proposed Budget	49
Table 23. Summary of Expenditures for FY 2016 Amended Budget and the FY 2017 and FY 2017 Proposed Budget	49
Figure 12. SFMTA Operating Expenses (in millions)	51
Figure 13. SFMTA Operating Revenues (in millions)	51
Table 24. SFMTA Operating Financial Plan (in \$ 1,000s)	52

SFMTA 10-YEAR CAPITAL FINANCIAL PLAN

Figure 14. FY 2017 – FY 2021 Capital Improvement Program Map	58
Table 25. FY 2018 – FY 2027 Summary of Anticipated Capital Funding by Source	59
Table 26. FY 2018 – FY 2027 Planned Capital Investment by Program	59

TRANSIT CAPITAL PROGRAMS

Figure 15. Muni Forward Transit Priority Projects	60
Table 27. Ongoing and Future Muni Forward Projects	61
Figure 16. Better Market Street Project Area	62
Figure 17. Geary Bus Rapid Transit Project Area	63
Figure 18. Geneva-Harney Rapid Transit Project Area	64
Figure 19. Sunset Tunnel Rail Replacement Project Area	66
Figure 20. Twin Peaks Tunnel Rail Replacement Project Area	67
Figure 21. Mission Bay Loop Project Area	68
Figure 22. Subway Expansion Project Area	69
Table 28. SFMTA Transit Fleet Inventory	72
Table 29. SFMTA Historic Streetcar Fleet Inventory	73
Table 30. SFMTA Fleet Replacement & Expansion through 2030, 60-foot Motor Coach in fixed route service	74
Table 31. SFMTA Spare Ratio Program through 2030, 60-foot Motor Coach in fixed route service	74
Table 32. SFMTA Fleet Replacement & Expansion through 2030, 40-foot Motor Coach in fixed route service	75
Table 33. SFMTA Spare Ratio Program through 2030, 40-foot Motor Coach in fixed route service	75
Table 34. SFMTA Fleet Replacement & Expansion through 2030, 32-foot Motor Coach in fixed route service	76
Table 35. SFMTA Spare Ratio Program through 2030, 32-foot Motor Coach in fixed route service	76
Table 36. SFMTA Fleet Replacement & Expansion through 2030, 60-foot Trolley Coach in fixed route service	77
Table 37. SFMTA Spare Ratio Program through 2030, 60-foot Trolley Coach in fixed route service	77
Table 38. SFMTA Fleet Replacement & Expansion through 2030, 40-foot Trolley Coach in fixed route service	78

Table 39. SFMTA Spare Ratio Program through 2030, 40-foot Trolley Coach in fixed route service	78
Table 40. SFMTA Fleet Replacement & Expansion through 2030, Light Rail Vehicles in fixed route service	79
Table 41. Motor Coaches Scheduled for Rehabilitation	80
Table 42. Paratransit Vehicle Fleet Inventory	81
Table 43. Non-Revenue Vehicle Fleet Inventory	81

OTHER SFMTA CAPITAL PROGRAMS

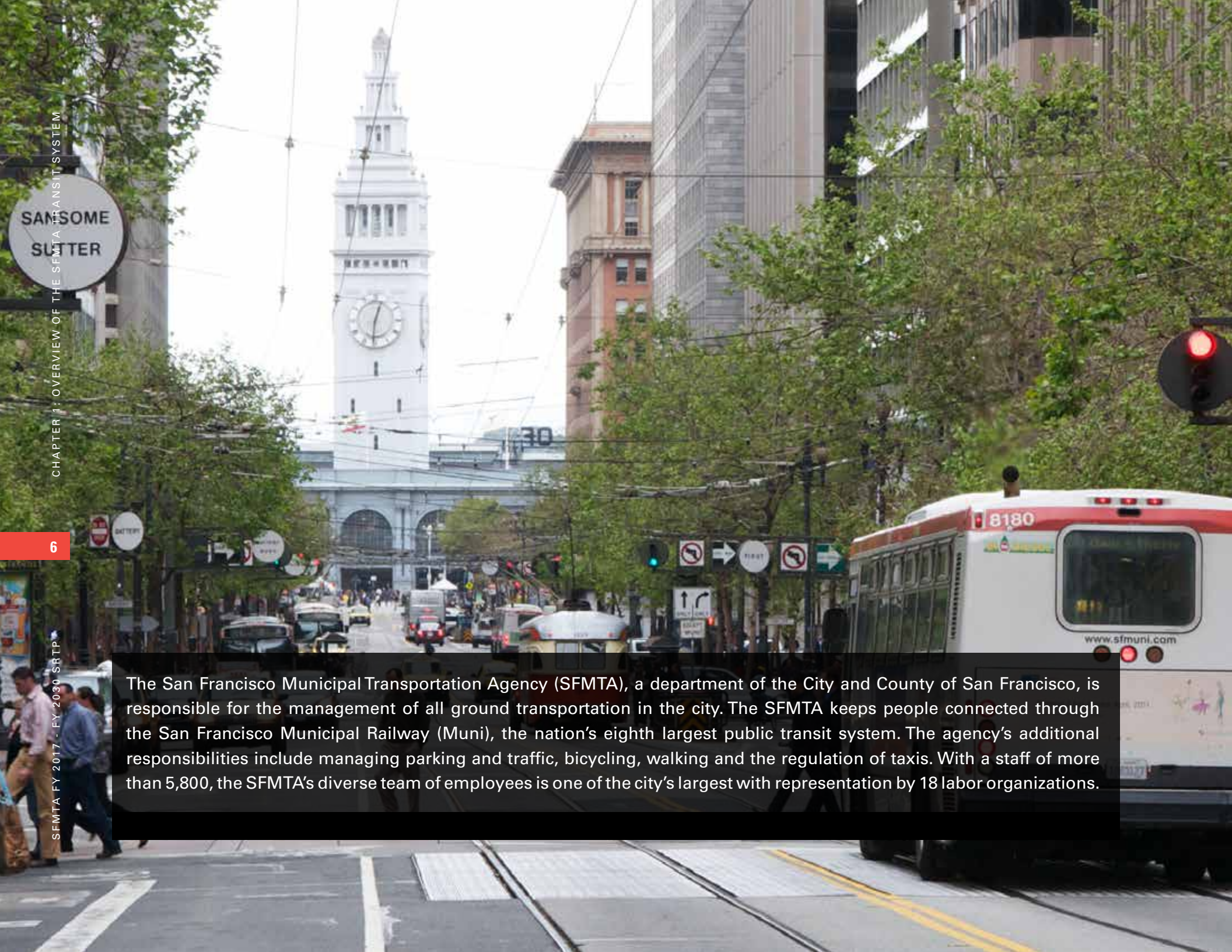
Table 44. Projected Development and Implementation Timeline for the SFMTA Enterprise Asset Management System	85
--	----

CENTRAL SUBWAY

Figure 23. Map of TThird Phase 2 (Central Subway)	89
Table 45. Central Subway Capital Costs	90
Table 46. Central Subway Funding Sources, Expenditures, and Cash on Hand	90
Figure 24. Central Subway Project Schedule	91
Figure 25. Central SoMa Project Area	92

VAN NESS BUS RAPID TRANSIT PROJECT

Figure 26. Van Ness Bus Rapid Transit Project Area	93
Table 47. Van Ness Bus Rapid Transit Project Capital Costs	93
Table 48. Van Ness Bus Rapid Transit Project Schedule	93
Table 49. Projected Van Ness BRT Operating Cost	94



The San Francisco Municipal Transportation Agency (SFMTA), a department of the City and County of San Francisco, is responsible for the management of all ground transportation in the city. The SFMTA keeps people connected through the San Francisco Municipal Railway (Muni), the nation's eighth largest public transit system. The agency's additional responsibilities include managing parking and traffic, bicycling, walking and the regulation of taxis. With a staff of more than 5,800, the SFMTA's diverse team of employees is one of the city's largest with representation by 18 labor organizations.

OVERVIEW OF THE SFMTA TRANSIT SYSTEM

BRIEF HISTORY

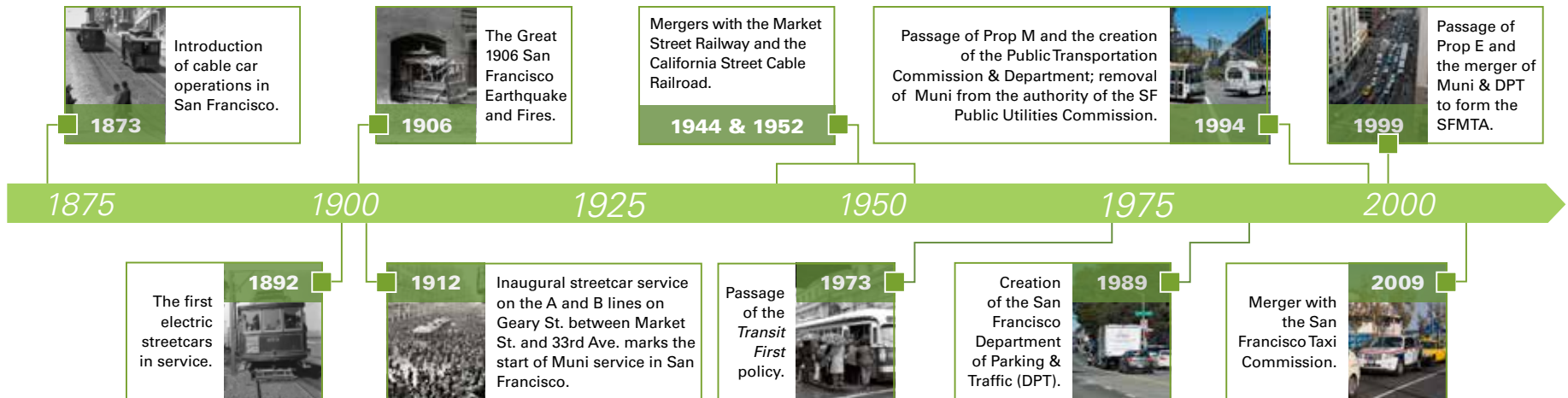
The San Francisco Municipal Railway (Muni) began service in 1912 as one of the first publicly-owned and operated transit systems in the United States. Several privately-run transit systems had operated in San Francisco following the Civil War and were still in operation in San Francisco at the time. In 1944, Muni merged with the Market Street Railway Company to triple the size of its system, and the 1952 acquisition of the California Street Cable Railroad resulted in municipal ownership of all transit service in San Francisco.

In 1999, San Francisco voters approved Proposition E, which amended the City Charter to merge Muni with the city's Department of Parking and Traffic (DPT).

Integration of the two organizations into the SFMTA took place in 2002, creating a multimodal transportation agency to operate transit service, manage city streets, and advance the city's Transit First Policy (Section 8A.115). Since then, the SFMTA has continued to evolve by merging with the Taxi Commission in March 2009.

While some of the facilities like the Presidio Division have been in use since the early days of Muni, the fleet and facilities have changed and expanded over the years to serve the growing city. The SFMTA currently runs transit service 24 hours a day, seven days a week, providing over 700,000 transit trips each weekday on its fleet of cable cars, historic streetcars, motor coaches, trolley coaches, and light rail vehicles.

Figure 1. Key Transportation Milestones and Events in San Francisco



GOVERNANCE

The SFMTA is a department of the City and County of San Francisco. As established in Proposition E in 1999, it is governed by a seven-member Board of Directors that provides policy oversight for the agency, including approval of its budget, contracts, and proposed changes of fares, fees and fines. The SFMTA Board also has the authority to appoint the Director of Transportation and serves as ex-officio members of the San Francisco Parking Authority.

The SFMTA Board of Directors is appointed by the mayor and confirmed by the San Francisco Board of Supervisors after a public hearing. Directors serve up to three four-year, fixed, staggered terms, and continue to serve until they resign, are replaced, or when the term expires. At least four of the Directors must be regular riders of public transit and must continue to be regular riders during their terms. The directors must possess significant knowledge of, or professional experience in, one or more of the fields

of government, finance, or labor relations. At least two of the directors must possess significant knowledge of, or professional experience in, the field of public transportation. During their terms, all directors are required to ride the system on the average of once a week. At the first regular meeting of the SFMTA Board after the 15th day of January each year, the members of the board elect from among their number a chair and vice-chair.

SFMTA CITIZENS' ADVISORY COUNCIL

The SFMTA Citizens' Advisory Council (CAC) is an advisory body to the SFMTA and was created by Proposition E. The CAC meets monthly to provide recommendations to staff and the Board of Directors with respect to any matter within the jurisdiction of the agency. It is composed of fifteen members appointed by the Mayor and the Board of Supervisors. There are three CAC subcommittees: Engineering, Maintenance & Safety, Finance & Administration, and Operations & Customer Service.

ORGANIZATIONAL STRUCTURE

In addition to the organizational change that occurred with the merger of Muni and DPT, the SFMTA underwent further reorganization in 2012 to improve delivery of transit, street design, planning, parking and traffic services. The SFMTA currently consists of seven main divisions: Capital Programs & Construction, Finance & Information Technology, Human Resources, Sustainable Streets, System Safety, Taxis & Accessible Services, and Transit. In addition, Communications & Marketing, Government Affairs, and the Central Subway Program also report directly to the Director of Transportation.

Capital Programs & Construction Division (CP&C). The CP&C Division improves the city's transportation infrastructure by designing and delivering large-scale engineering and construction projects.

Finance & Information Technology Division (FIT). The FIT Division is responsible for managing the agency's finances, collecting fare revenues, leveraging information technology, managing facilities and

CURRENT MEMBERS AND TERMS OF THE SFMTA BOARD OF DIRECTORS



Cheryl Brinkman
Chair of the Board

Appointed to the Board in 2010;
Elected Chair in 2017.



Gwyneth Borden
Member of the Board

Appointed to the
Board in 2014.



Joél Ramos
Member of the Board

Appointed to the
Board in 2011.



Art Torres
Member of the Board

Appointed to the
Board in 2017.



Malcolm A. Heinicke
Vice-Chair of the Board

Appointed to the Board in 2008.
Elected Vice-Chair in 2017.



Lee Hsu,
Member of the Board

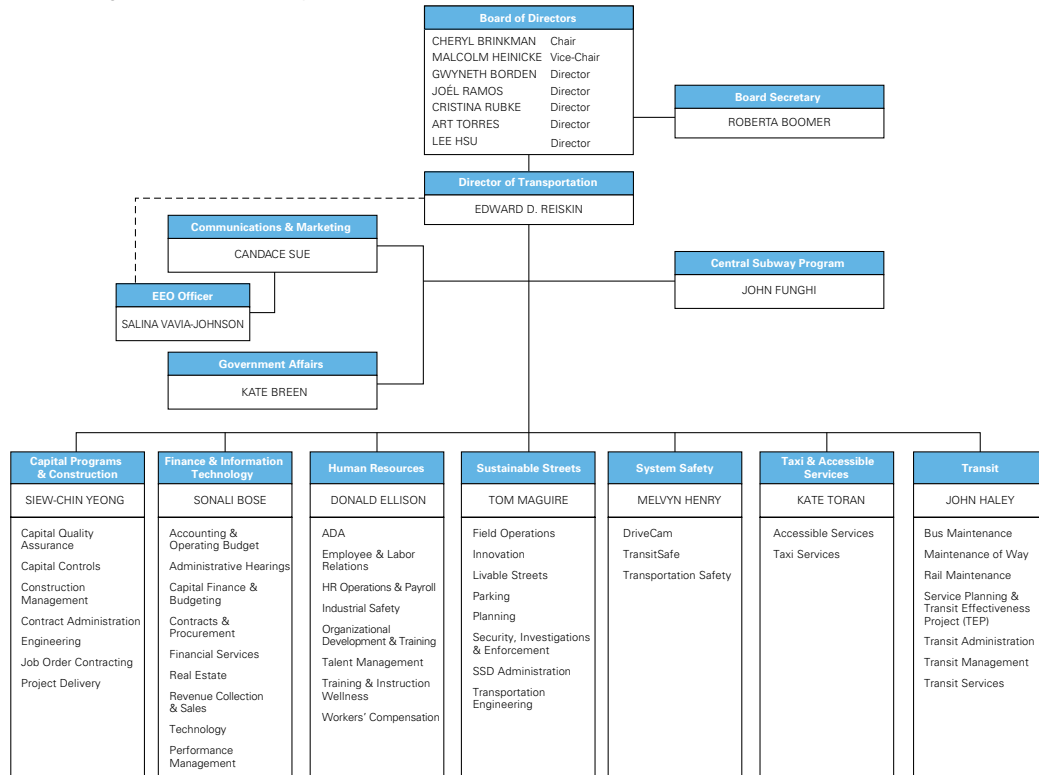
Appointed to the
Board in 2016.



Cristina Rubke
Member of the Board

Appointed to the
Board in 2012.

Figure 2. SFMTA Organization Chart, as of May 2017



real property, and effectively utilizing resources to maximize the financial, technological, and physical ability and capacity of the SFMTA.

Human Resources Division (HR). SFMTA HR enables the agency to accomplish its goals by supplying necessary support services that include: recruitment, hiring, employment and labor relations, payroll, organizational development and training, employee wellness, equal employment opportunity, and workers' compensation.

Sustainable Streets Division (SSD). The Sustainable Streets Division provides multimodal transportation

planning and engineering to improve San Francisco's transportation system and support sustainable community and economic development. SSD also manages 38 parking facilities, enforces San Francisco's parking regulations, and enforces compliance of transit fare payment. The Division also oversees the dedicated services provided by the San Francisco Police Department Traffic Division.

System Safety Division. This division is responsible for providing a safe environment for riders, employees, and the citizens of the City and County of San Francisco. It maintains a safety program that

attains an optimum level of safety and environmental compliance, including: maintaining records for all collision, incidents and hazards; conducting internal safety audits and vehicle safety reviews; developing corrective action plans; and performing inspections and mandated safety certifications.

Taxis & Accessible Services (TAS). TAS represents a combination of two distinct functions of the SFMTA that substantially overlap in the regulation of the taxi mode of transportation.

Taxi Services is charged with licensing and regulating the private taxi industry to ensure the safety of the riding public, drivers, and vehicles. TAS also ensures that taxi service is universally accessible regardless of trip origin or destination, without illegal discrimination, at prices that are transparent, uniform and accessible to low- and fixed-income customers, and that there is an adequate supply of taxicabs to meet transportation demand.

Accessible Services is charged with ensuring Americans with Disabilities Act (ADA) compliance for the entire agency and providing technical assistance on accessibility to all areas of the agency's work, e.g. fixed route transit, capital projects, parking, bicycle, and pedestrian projects. Accessible Services also operates San Francisco's Regional Transit Connection Discount Card (RTC) office and oversees the provision of Paratransit services. All taxis in San Francisco are required to participate in the SF Paratransit Program.

Transit Division (Muni). The Transit Division (Muni) provides safe, reliable, clean, accessible, and convenient public transit service throughout San Francisco. In addition to the planning, scheduling, and delivery of transit operations and services, this division also maintains the fleet, facilities, and infrastructure needed to deliver Muni services.

Table 1. Budgeted Positions by Division

SFMTA DIVISION	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Board Of Directors	6	4	4	4	4
Capital Programs & Construction	169	156	159	200	214
Communications	18	23	26	43	44
Executive Director	5	7	7	5	5
Finance & Information Technology	335	358	367	396	398
Government Affairs	3	5	5	5	6
Human Resources	135	76	155	168	169
System Safety	22	111	14	19	20
Sustainable Streets	773	687	689	708	700
Transit	3,363	3,554	3,801	4,091	4,109
Taxis & Accessible Services	25	27	29	31	31
GRAND TOTAL*	4,854	5,008	5,256	5,670	5,700

* NOTE: Excludes unfunded positions FY 2015 49 FTEs and FY 2016 53 FTEs

Table 1 provides a breakdown of the number of employees in each SFMTA Division, including grant-funded positions, budgeted for FY 2014 – FY 2018. The largest groups of employees at SFMTA are in

the Transit and Sustainable Streets Divisions, as they include the transit operators and enforcement personnel, respectively.



Contracted transportation service van

CONTRACTED TRANSPORTATION SERVICES

The SFMTA Transit Division operates all fixed route Muni transit service in San Francisco. The SFMTA also currently provides SF Paratransit Services through a contract with Transdev, formerly called Veolia Transportation, and subcontractors (Centro Latino, Self Help for the Elderly, and Kimochi) to operate the following paratransit services through the end of 2022:

- **SF Access** – Americans with Disabilities Act (ADA)-mandated, door-to-door, shared ride van service where riders must schedule trips one to seven days in advance.
- **Group Van** – Specialized van service that picks up and drops off groups of individuals who will be going to the same agency/center. Trips are scheduled with the agency/center and riders must be ADA eligible.
- **Shop-a-Round** – A grocery shopping shuttle service that transports seniors and people with disabilities to grocery stores.
- **Van Gogh** – a shuttle service for seniors and people with disabilities to social and cultural events in San Francisco. This service aims to reduce social isolation of seniors and people with disabilities.

In addition to these contracted services, all taxi companies in San Francisco are required to participate in the SF Paratransit program by City ordinance. A user-side subsidy is provided to Paratransit clients, who are issued a debit card to pay for their paratransit taxi trips.

LABOR UNIONS

The SFMTA Employee & Labor Relations team works with the Labor Unions to negotiate the agreements that determine the work rules and compensation packages for approximately 5,000 employees. There are eight SFMTA Service-Critical and 10 Citywide labor agreements for 18 bargaining units within the SFMTA. All collective bargaining agreements and memorandums of understanding for these labor unions are available online: <http://www.sfmta.com/about-sfmta/labor-relations/mouscbas>.

Table 2. SFMTA Collective Bargaining Agreements and Memorandums of Understanding

LABOR UNION	LOCAL BRANCH	LENGTH OF CURRENT CONTRACT
SFMTA Service-Critical Collective Bargaining Agreements/Memorandums of Understanding		
Transport Workers' Union (TWU)	Local 250-A (Transit Operators 9163)	July 1, 2014 - June 30, 2017
	Local 250-A (Transit Fare Inspectors 9132)	July 1, 2014 - June 30, 2017
	Local 250-A (Automotive Service Workers 7410)	July 1, 2015 - June 30, 2017
	Local 200	July 1, 2016 - June 30, 2017
International Brotherhood of Electrical Workers (IBEW)	Local 6	July 1, 2014 - June 30, 2017
International Association of Machinists (IAM)	Local 1414	July 1, 2014 - June 30, 2017
Service Employees International Union (SEIU)	Local 1021	July 1, 2014 - June 30, 2017
Municipal Executives Association (MEA)	Municipal Executives Association (MEA)	July 1, 2014 - June 30, 2017
Citywide Collective Bargaining Agreements/Memorandums of Understanding applicable to SFMTA		
Consolidated Crafts	<ul style="list-style-type: none"> The Northern California Carpenters Regional Council, Local 22 Glaziers, Architectural Metal and Glass Workers, Local 718 Sheet Metal Workers International Union, Local 104 Teamsters, Local 853 	July 1, 2014 - June 30, 2017
International Federation of Professional & Technical Engineers (IFPTE)	Local 21	July 1, 2014 - June 30, 2017
Laborers International Union	Local 261	July 1, 2014 - June 30, 2017
Operating Engineers	Local 3	July 1, 2014 - June 30, 2017
Painters	San Francisco City Workers United	July 1, 2014 - June 30, 2017
Service Employees International Union (SEIU)	Local 1021	July 1, 2014 - June 30, 2017
Stationary Engineers	Local 39	July 1, 2014 - June 30, 2017
Teamsters	Local 856 Multi-Unit	July 1, 2014 - June 30, 2017
United Association of Plumbers and Pipefitters	Local 38	July 1, 2014 - June 30, 2017

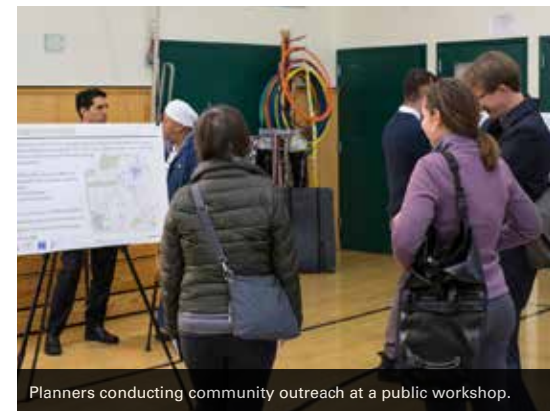
For those employees in job classifications not represented by a labor union or employee organization, Section A8.409-1 of the City Charter has established working schedules, conditions of employment, and methods of payment, effective July 1, 2013.



Paint Shop Crew painting Pedestrian Safety Zone on 16th and Market.



The Cable Car Division Operators, Mechanics, and Shop Crew.



Planners conducting community outreach at a public workshop.

TRANSIT SERVICES

As part of its mission, the SFMTA strives to provide excellent travel choices through a convenient, reliable, accessible and safe transportation system that meets the needs of people within the City and County of San Francisco. Based on the 2015 Travel Decision Survey, 24% of all trips to, from and within San Francisco were by transit, including those on regional transit systems.

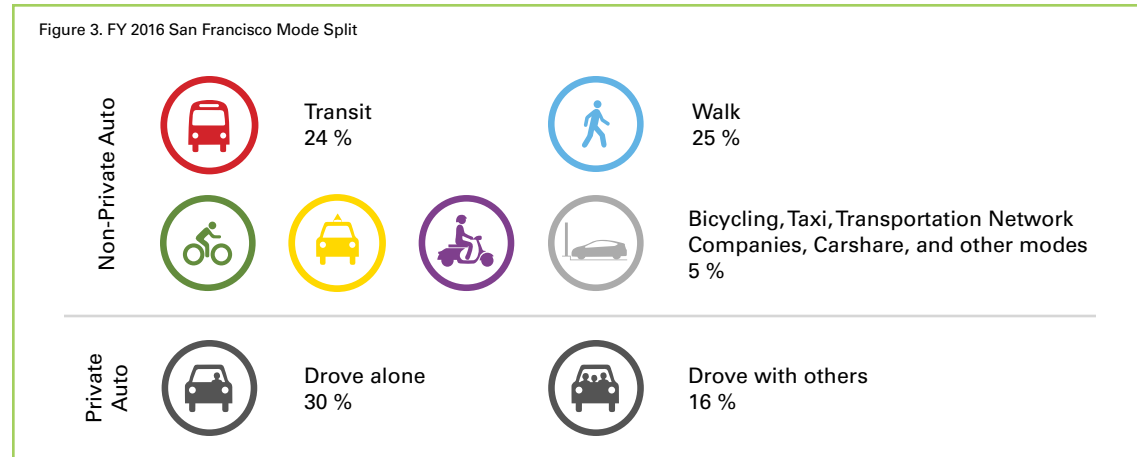
The SFMTA operates Muni, the oldest and largest transit system in the San Francisco Bay Area, providing close to 45 percent of all transit trips in the region. In addition, it is the eighth largest transit system in the nation based on boardings, carrying more than 230 million passengers annually. The agency's transit fleet is among the most diverse in the world, featuring:

- Clean Diesel and hybrid electric motor coaches
- Electric trolley coaches
- Modern light rail vehicles
- A historic collection of streetcars from the U.S. and around the world
- The nation's only operating cable cars, listed as a U.S. National Historic Landmark
- A fleet of paratransit vehicles.

MUNI FORWARD

Muni Forward aims to make getting around San Francisco safer and more reliable. Informed by the Transit Effectiveness Project, SFMTA Strategic Plan Goals 2 & 3, and extensive community input, Muni Forward's route changes, service improvements, and

Figure 3. FY 2016 San Francisco Mode Split



transit priority projects will help reallocate limited resources where they are needed most to provide excellent transit service:

- The Implementation of a Rapid & Transit Priority Network of core routes serving nearly 70 percent of all riders is providing more reliable trips.
- Updating Muni's transit fleet and making important safety and accessibility projects across the city, combined with the WalkFirst projects, are helping the agency better accommodate the needs of families, seniors, and people with disabilities, and enhance comfort and safety for all our customers.
- Using technology more effectively by improving the integration of our transit system with traffic signals and bringing more real-time information to our customers are making our transit system smarter, and more reliable.

In addition to capital improvements, Muni Forward also incorporates service changes that better reflect current

travel patterns. Muni offers end-to-end coverage of the city that puts a Muni stop within a quarter mile of every San Francisco resident. This access to bus and rail service allows customers to combine trips on routes and lines to get anywhere in the city, mostly within reach of a short walk or minimal number of transfers.

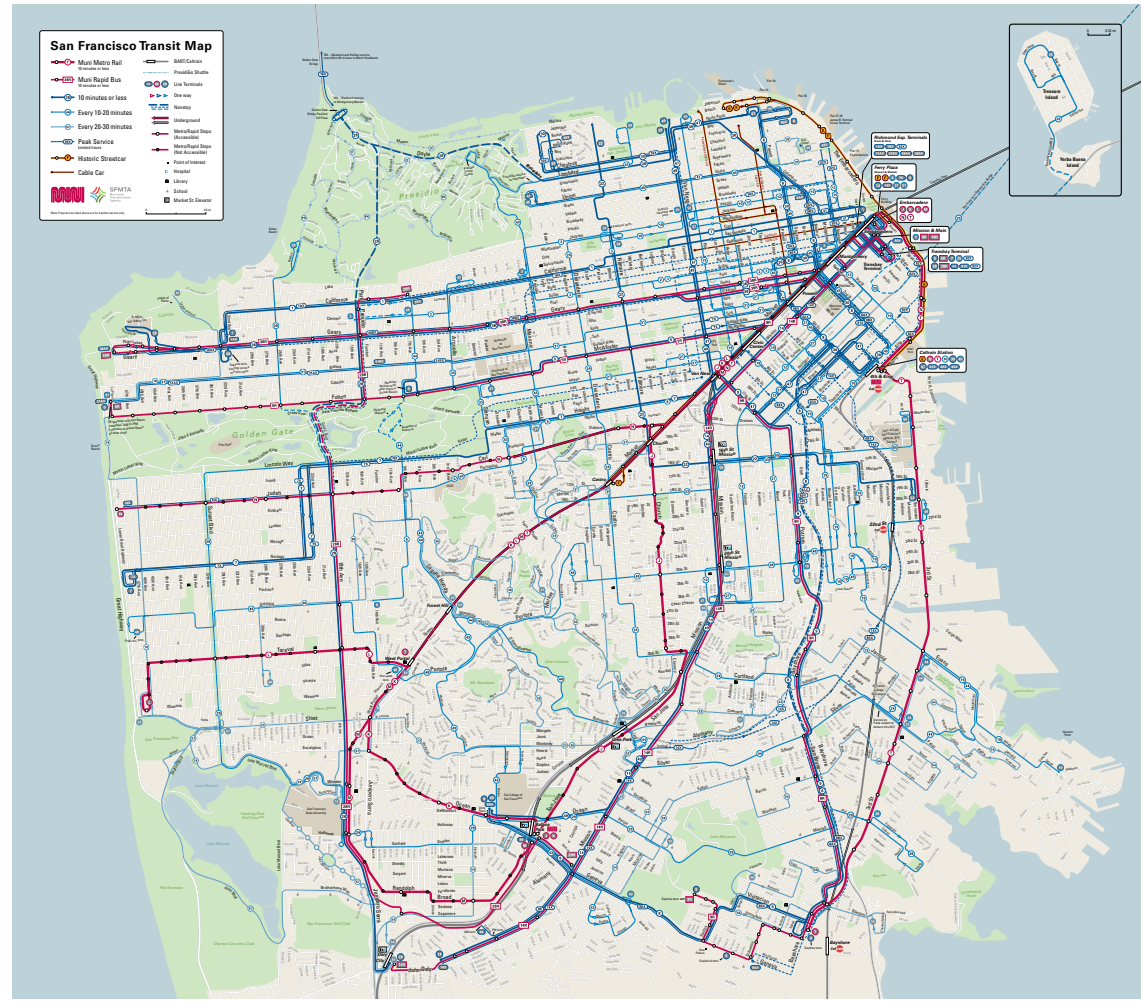
To make it easier to navigate the transit system and more efficient to travel on our most heavily used routes, the SFMTA has recently updated the service framework to define the six types of Muni transit service. Muni will continue to provide specialized services including express service, late evening "Owl" service, and special event trips to serve sporting events, large festivals and other San Francisco activities.

MUNI FORWARD SERVICE FRAMEWORK

In addition to identifying Rapid routes, the Muni service framework organizes all the Muni transit routes into six principle types of transit service in the city:

- Muni Metro & Rapid Bus** (10 minutes or less & skip stop service): These heavily used bus and rail lines form the backbone of the Muni system. With vehicles arriving frequently and transit priority enhancements along the routes, the Rapid network delivers speed and reliability whether customers are heading across town, or simply traveling a few blocks.
- Frequent** (10 minutes or less service): These routes combined with Muni Metro and Rapid Bus create the Rapid network. They provide high-quality, frequent service but with more frequent stops along the route.
- Grid** (12 - 30 minutes service): These citywide routes combine with the Rapid Network to form an expansive core system that lets customers get to their destinations with no more than a short walk, or a seamless transfer. Depending on demand, they typically operate less frequently than the Rapid Network routes.
- Connector** (Over 30 minutes service): These bus routes predominantly circulate through San Francisco's hillside residential neighborhoods, filling in gaps in coverage and connecting customers to major transit hubs.
- Historic:** Historic Streetcars and Cable Cars.
- Specialized:** These routes augment existing service during specific times of day to serve a specific need, or serve travel demand related to special events. They include AM and PM commute service, owl service, weekend-only service, and special event trips to serve sporting events, large festivals, and other San Francisco activities.

Figure 4. San Francisco Municipal Railway Service Map, as of June 2016



All residential neighborhoods in San Francisco are within a quarter of a mile of a Muni bus or rail line stop.

In conjunction with this modernization of transit service, the SFMTA updated the transit service map to help customers navigate the network and identify the transit lines that work best for them.

Although the Muni routes have been categorized by frequency and type of service, the cost to ride remains consistent across all types of service, with the few exceptions of the cable car and special event fares. Table 3 details the routes, types of services, and areas served for all Muni service.

Route-by-route maps, stops, descriptions, and related projects available on www.sfmta.com.



Table 3. Muni Transit Service Type and Areas, as of March 2017

TYPE OF TRANSIT SERVICE	MUNI ROUTES & AREAS SERVED
Fixed Route Service Transit Service	
Muni Metro & Rapid Bus	J Church, KT Ingleside/Third Street, L Taraval, M Ocean View, N Judah, 5R Fulton Rapid, 7R Haight/Noriega Rapid, 9R San Bruno Rapid, 14R Mission Rapid, 28R 19th Avenue Rapid, 38R Geary Rapid
Frequent	1 California, 7 Haight/Noriega, 8 Bayshore, 9 San Bruno, 14 Mission, 22 Fillmore, 24 Divisadero, 28 19th Avenue, 30 Stockton, 38 Geary, 47 Van Ness, 49 Van Ness/Mission
Grid	2 Clement, 3 Jackson, 5 Fulton, 6 Haight/Parnassus, 10 Townsend, 12 Folsom/Pacific, 18 46th Avenue, 19 Polk, 21 Hayes, 23 Monterey, 27 Bryant, 29 Sunset, 31 Balboa, 33 Ashbury/18th, 43 Masonic, 44 O'Shaughnessy, 45 Union/Stockton, 48 Quintara/24th Street, 54 Felton
Connector	25 Treasure Island, 35 Eureka, 36 Teresita, 37 Corbett, 39 Coit, 52 Excelsior, 55 16th Street, 56 Rutland, 57 Park Merced, 66 Quintara, 67 Bernal Heights
Historic	California Cable Car, Powell/Hyde Cable Car, Powell/Mason Cable Car, E Embarcadero, F Market & Wharves
Specialized <i>(commuter express, shuttles & special events)</i>	NX Judah Express, 1AX California A Express, 1BX California B Express, 7X Noriega Express, 8AX Bayshore A Express, 8BX Bayshore B Express, 14X Mission Express, 30X Marina Express, 31AX Balboa A Express, 31BX Balboa B Express, 38AX Geary A Express, 38BX Geary B Express, 41 Union, 76X Marin Headlands Express, 81X Caltrain Express, 82X Levi Plaza Express, 83X Mid-Market Express, 88 BART Shuttle
Supplemental Service	Supplemental Muni service to middle and high schools in the City and County of San Francisco. Buses start at schools and continue on regularly scheduled routes.
Owl Service <i>(late night transit service)</i>	L Owl, N Owl, 5 Fulton, 14 Mission, 22 Fillmore, 24 Divisadero, 38 Geary, 44 O'Shaughnessy, 48 Quintara/24th Street, 90 San Bruno Owl, 91 Owl, 25 Treasure Island
Accommodation of bicycles	All hybrid, motor, and trolley coaches that run on the Rapid Frequent, Connector, Commuter Express, Specialized, and Owl service routes are equipped with external bicycle racks on the front of the vehicle. Non-folding bikes are not allowed inside any Muni bus, streetcar, or other transit vehicle at any time. However, as of May 24, 2011, folding bicycles are allowed inside all Muni vehicles except cable cars. There is no extra charge for bicycles on transit vehicles.
Demand Responsive Transit Service	
Seniors and for people with disabilities, including service required under the Americans with Disabilities Act (ADA)	San Francisco Paratransit is a contracted van and taxi service provided 24 hours a day, 7 days a week, 365 days a year citywide for people unable to independently use or access public transit because of a disability or disabling health condition. Service is provided within San Francisco, to Treasure Island, to the northernmost part of Daly City in San Mateo County, and to Marin Headlands on weekends mirroring the Muni 76X-Marin Headlands line. ADA-certified people who are visiting from outside San Francisco will be served by San Francisco Paratransit.

In addition to operating fixed route and demand responsive transit services in San Francisco, the SFMTA coordinates with other transit service operators in the Bay Area to provide connections to regional destinations. All connecting services use the Clipper Card, and in some cases provide a discounted transfer to their system.

Table 4. Regional Transit Service Type, Areas, and Transfer Structure

TRANSIT PROVIDER	AREAS SERVED	TRANSFER STRUCTURE <i>(as of January 1, 2017)</i>
\$0.50 discount off Adult Muni single ride fares paid on a Clipper Card are available to all connecting services provided by our partners.		
Alameda Contra-Costa Transit District (AC Transit)	ACTransit operates accessible bus service between the Transbay Terminal in San Francisco and the East Bay.	Customers transferring from ACTransit receive a \$0.50 discount on adult single ride Muni fare when paid using Clipper.
Bay Area Rapid Transit (BART)	BART provides regional transit service in Alameda, Contra Costa, San Mateo, and San Francisco counties, including direct service to San Francisco International Airport.	<p>Transferring from the Daly City BART station to Muni using Clipper: Customers transferring from the BART Daly City station to Muni lines are eligible for two free rides on Muni routes 14R, 28, 28R and 54 within 24 hours of exiting the BART station.</p> <p>Muni+BART Monthly "A" Pass (\$91): Provides unlimited rides on all Muni service, including cable cars, and travel between BART stations within San Francisco.</p> <p>Inter-Agency Transfer: Customers transferring from BART receive a \$0.50 discount on adult single ride Muni fare when paid using Clipper.</p>
Caltrain	Caltrain provides local, limited and Baby Bullet train service between San Francisco and San Jose, with weekday commute-hour service to Gilroy.	Customers transferring from Caltrain receive a \$0.50 discount on adult single ride Muni fare when paid using Clipper.
Golden Gate Ferry and Transit	Golden Gate Transit bus lines run from San Francisco over the Golden Gate Bridge to a variety of destinations in Marin and Sonoma Counties. Golden Gate Transit ferries operate from the Ferry Building at the foot of Market Street to Sausalito, Tiburon and Larkspur.	Customers transferring from Golden Gate Transit receive a \$0.50 discount on adult single ride Muni fare when paid using Clipper. Golden Gate Transit also provides a reciprocal \$0.50 single ride discount for Muni customers transferring to their service.
San Francisco Bay Ferry	The San Francisco Bay Ferry provides weekday, weekend, holiday, and seasonal services to various terminal locations around the bay.	Customers transferring from San Francisco Bay Ferry receive a \$0.50 discount on adult single ride Muni fare when paid using Clipper. San Francisco Bay Ferry also provides a reciprocal \$0.50 single ride discount for Muni customers transferring to their service.
Vallejo/Baylink Ferry	The Vallejo/Baylink ferry operates daily service between Pier 41 (limited departures/arrivals) and the Ferry Building in San Francisco and the Vallejo Ferry Terminal.	Customers transferring from Vallejo/Baylink receive a \$0.50 discount on adult single ride Muni fare when paid using Clipper
SamTrans	SamTrans in San Mateo County operates from San Francisco to San Mateo County.	Customers transferring from SamTrans receive a \$0.50 discount on adult single ride Muni fare when paid using Clipper



Table 5. Muni Fare Changes

FARE TYPE	FY 2016 FARES	EFFECTIVE 9/1/16	EFFECTIVE 1/1/17	EFFECTIVE 7/1/17	EFFECTIVE 1/1/18
Adult Single Ride Fare (Clipper® and Mobile Ticketing)	\$2.25	\$2.25	\$2.25	\$2.50	\$2.50
Adult Single Ride Fare (Cash and Limited Use Ticket)	\$2.25	\$2.25	\$2.50	\$2.75	\$2.75
Discount Single Ride Fare (Youth to 17* years, Seniors and People with Disabilities) (Clipper® and Mobile Ticketing)	\$1.00	\$1.00	\$1.00	\$1.25	\$1.25
Discount Single Ride Fare (Youth to 17* years, Seniors and People with Disabilities) (Cash and Limited Use Ticket)	\$1.00	\$1.00	\$1.25	\$1.35	\$1.35
Tokens for Non Profit Social Service Agencies	\$2.25	\$2.25	\$1.25	\$1.35	\$1.35
Free Muni Program – Low/Moderate Income Youth, Seniors, People with Disabilities (SF Residents - Enrollment Required)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Adult “A” Monthly Pass (Includes BART within SF)	\$83	\$86	\$91	\$94	\$94
Adult “M” Monthly Pass (Muni Only)	\$70	\$73	\$73	\$75	\$75
Adult “M” Monthly Pass for Non Profit Social Service Agencies	\$70	\$73	\$36	\$38	\$38
Discount (Youth/Senior/People with Disabilities) Monthly Pass (Muni Only)	\$24	\$25	\$36	\$36	\$38
Adult Lifeline Monthly Pass (Low Income)	\$35	\$36	\$36	\$38	\$38
Cable Car Single Ride	\$7.00	\$7.00	\$7.00	\$7.00	\$7.00
One-Day Passport	\$20	\$20	\$21	\$21	\$22
Three-Day Passport	\$31	\$31	\$32	\$32	\$33
Seven-Day Passport	\$40	\$40	\$42	\$42	\$43
Tokens (pack of 10)	\$22.50	\$22.50	\$22.50	\$25	\$25
Off-Peak Cable Car Fare (Seniors and People with Disabilities Only) from 9:00 p.m. to 7:00 a.m.	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00

*Effective January 1, 2017, Youth Discount age extended to include 18 year olds.

FARE CHANGES

Muni fare increases are based on a formula set in 2009 by the SFMTA Board of Directors to create a more predictable and transparent mechanism for setting charges. The formula is based on a combination of the Bay Area Consumer Price Index for all urban consumers (CPI-U) and labor costs. See Table 5 for a list of fares approved by the SFMTA Board for FY 2017 and FY 2018.

FREE MUNI PROGRAM

In FY 2013 and FY 2014, the SFMTA ran a pilot program to provide free Muni for low income youth funded through a variety of grants. As a result of a gift from Google, the program was continued for FY 2015 and FY 2016. Additionally, in May 2014 the SFMTA Board extended the definition of youth from 17 to 18.

In January 2015, based on an evaluation of the fiscal health of the agency, the SFMTA Board voted to expand this program. The SFMTA now provides free Muni for low and moderate income youth (ages 5-18), 19 - 22-year-olds enrolled in San Francisco Unified School District programs, seniors (ages 65+), and disabled riders who use a Clipper® card.

Table 6. Paratransit Fares

TYPE OF SERVICE	FY 2016 CURRENT FARES	EFFECTIVE 9/1/16	EFFECTIVE 7/1/17
Van Services**	\$2.25	\$2.25	\$2.50
Taxi Services	\$5.50 for \$30 of taxi value	\$5.50 for \$30 of taxi value	\$6 for \$30 of taxi value

** Fare applies to all Paratransit Van fares. For group van a \$0.25 per trip discount applies for agencies that provide their own vehicles.

OVERVIEW OF THE REVENUE FLEET

Comprised of cable cars, historic streetcars, electric trolley coaches, renewable diesel and hybrid buses, light rail vehicles, and paratransit vans, Muni has one of the most diverse vehicle fleets in the world. The information below shows a vehicle count as of December 2016. Over the next four years the SFMTA will be replacing its entire rubber tire fleet to improve transit service, improve the overall customer experience, and bring clean, new vehicles that use state-of-the-art hybrid and renewable diesel technologies to make Muni's fleet, already one of the greenest in the nation, even cleaner. The light rail vehicles replacement and expansion program spans multiple years, starting with expansion and transitioning to replacement around the end of the decade.



CABLE CARS

Invented in San Francisco in 1873 and still in operation on three lines, San Francisco's cable cars are an icon of the city. Cable cars currently provide service for about three percent of system riders.

Vehicle count: 40 cable cars; Type of Service: Historic



HISTORIC STREETCARS

Restored historic streetcars from around the world travel from the Castro to Fisherman's Wharf and Fisherman's Wharf to Caltrain at 4th & King. The one-of-kind vehicles carry about 21,000 passengers a day.

Vehicle count: 43 vehicles operational, as of June 2016, including Presidents' Conference Committee (PCC), Milan, and other unique and work vehicles. Type of Service: Historic



LIGHT RAIL VEHICLES

The all-electric light rail trains run both above and below ground. The six light rail lines serve about 20 percent of system riders.

Vehicle count: 149 vehicles; Type of Service: Rapid



MOTOR COACHES

The SFMTA's 32-foot, 40-foot, and 60-foot renewable diesel and renewable diesel-hybrid buses help connect people throughout San Francisco – to work, school, home and other trips. The motor coach sub-fleet is the backbone of Muni service and carries over 40 percent of the system's riders.

Vehicle count: 610 vehicles from various manufacturers; Type of Service: Rapid, Frequent, Grid, Connector, Express, Specialized



ELECTRIC TROLLEY COACHES

The SFMTA operates the second-largest trolley coach fleet in North America. These zero-emission vehicles carry about 27 percent of system riders.

Vehicle count: 202 40-foot and 60 60-foot trolley coaches (33 more will be in production); Type of Service: Rapid, Frequent, Owl



PARATRANSIT VEHICLES

The SFMTA provides paratransit service to seniors and people with disabilities who are unable to independently ride the Muni fixed route system. In FY 2015, SFMTA-owned wheelchair accessible vehicles completed approximately 775,000 trips for more than 13,000 active riders.

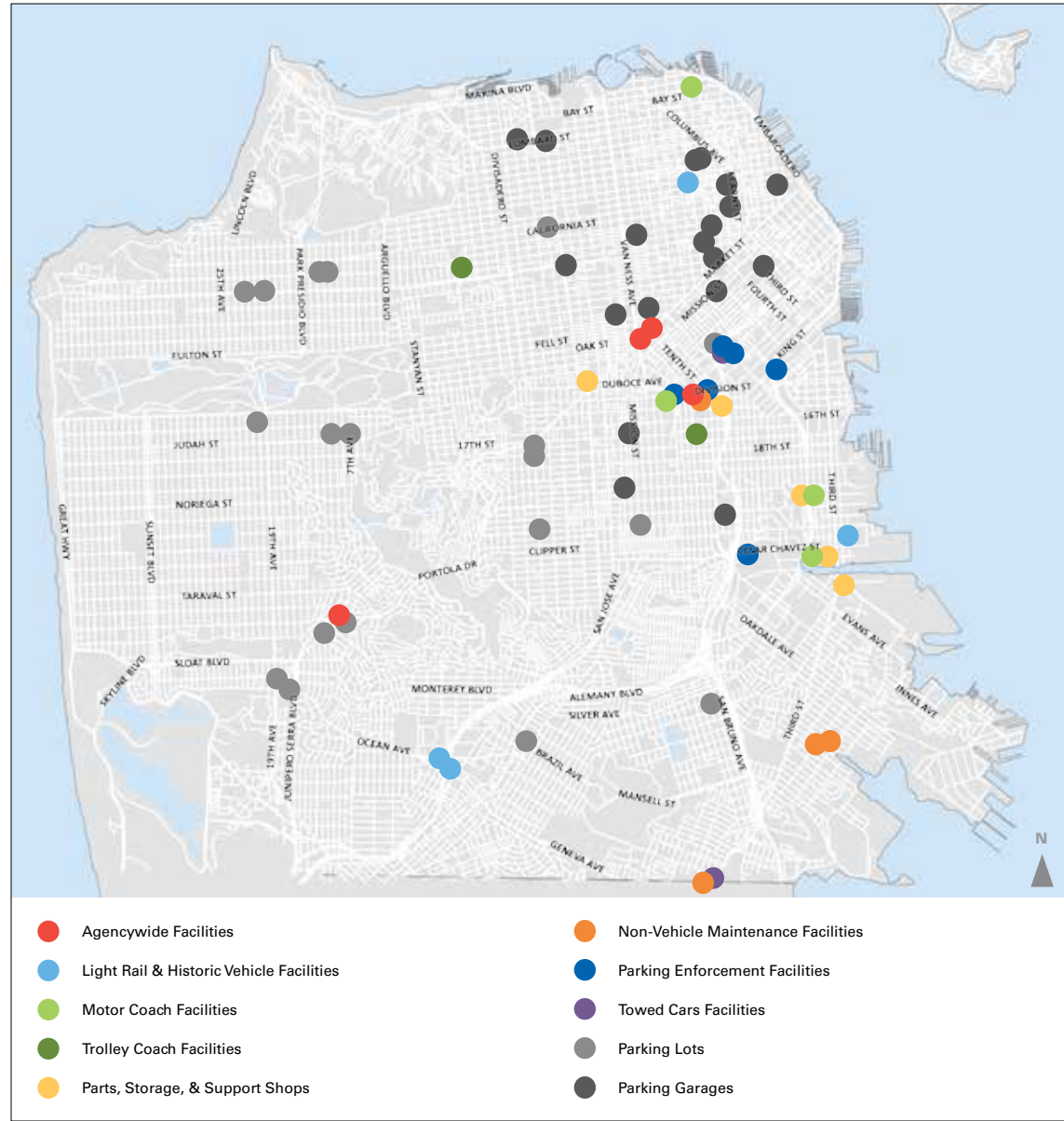
Vehicle count: 112 22-foot vans, 5 25-foot vans, and 5 wheelchair accessible minivans; Type of Service: demand-responsive paratransit service

EXISTING FACILITIES

The SFMTA owns and leases a wide variety of buildings, grounds, and infrastructure that enables the operation, maintenance, planning, engineering, enforcement, and administration of the complex transportation system in San Francisco. The majority of the 29 facilities are dedicated to the maintenance, fueling, storage, and staging of the transit and traffic enforcement vehicles. Also under SFMTA control are 19 public parking garages and 19 metered parking lots.



Figure 5. San Francisco Municipal Transportation Agency Facilities Map





Islais Creek Motor Coach Division



Flynn Motor Coach Division



SFMTA Headquarters at 1 South Van Ness Avenue

Table 7. SFMTA Administrative, Operations, Maintenance, Fueling, Vehicle Storage and Staging Facilities

FACILITY NAME		LOCATION	YEAR OPEN	SITE OWNERSHIP	FACILITY CAPACITY
AGENCYWIDE	SFMTA Headquarters	1 South Van Ness Avenue, Floors 3, 6, 7, and 8	2003	CCSF Owned	Office of the Director of Transportation, Capital Programs & Construction, Communications & Marketing, Finance & Information Technology, Human Resources, Sustainable Streets Planning and Engineering offices, System Safety, Taxis & Accessible Services, Transit Administration and Operations Planning & Schedules offices
	Transportation Management Center	1455 Market Street	2015	Leased by CCSF on behalf of SFMTA	Transit Operations & Traffic Signal Operations Control Centers
	Central Control	131 Lenox Way, West Portal Station	1982	CCSF owned, under jurisdiction of SFMTA	Current Transit Operations Control Center
	Power Control Center	Undisclosed	1977	CCSF owned, under jurisdiction of SFMTA	Central facility to monitor electrical system for all SFMTA operations
LIGHT RAIL & HISTORIC	Cable Car Barn	Mason Street and Washington Street	1887; rebuilt and reopened 1984	CCSF owned, under jurisdiction of SFMTA	40 cable cars
	Beach-Geneva Yard	Geneva Avenue, San Jose Avenue, and I-280	1907	CCSF owned, under jurisdiction of SFMTA	36 75-ft LRVs; 55 50-ft historic streetcars; and 24 historic streetcars under canopy
	Green Division & Green Annex	Geneva Avenue, San Jose Avenue, and I-280	1977 & 1987	CCSF owned, under jurisdiction of SFMTA	91 75-ft LRVs; 25 historic streetcars
	Muni Metro East	Cesar Chavez/25th Street and Illinois Street	2008	CCSF owned, under jurisdiction of SFMTA	125 75-ft LRVs
MOTOR COACH	Flynn Division	15th Street and Harrison Street	1989	CCSF owned, under jurisdiction of SFMTA	125 60-ft Articulated Motor Coaches
	Islais Creek	Cesar Chavez Street and Indiana Street	Under Construction	CCSF owned, under jurisdiction of SFMTA	56 40-ft Motor Coaches; 111 60-ft Motor Coaches (when completed)
	Kirkland Yard	North Point Street and Powell Street	1950	CCSF owned, under jurisdiction of SFMTA	132 40-ft Motor Coaches; currently over capacity at 135 40-ft Motor Coaches
	Woods Division	22nd Street and Indiana Street	1974	CCSF owned, under jurisdiction of SFMTA	30 32-ft Motor Coaches; and 212 40-ft Motor Coaches
TROLLEY COACH	Potrero Division	Bryant Street, Mariposa Street, and 17th Street	1914	CCSF owned, under jurisdiction of SFMTA	25 40-ft Trolley Coaches; 107 60-ft Trolley Coaches
	Presidio Division	Geary Boulevard and Presidio Avenue	1912	CCSF owned, under jurisdiction of SFMTA	165 40-ft Trolley Coaches



Table 7. (Continued) SFMTA Administrative, Operating, Maintenance, Fueling, Vehicle Storage and Staging Facilities

FACILITY NAME		LOCATION	YEAR OPEN	SITE OWNERSHIP	FACILITY CAPACITY
PARTS STORAGE & SUPPORT SHOPS	Marin Division	1399 Marin Street	1990	CCSF owned, under jurisdiction of the Port of San Francisco; MOU with SFMTA	New Bus Acceptance, Track Maintenance, and Storage
	700 Penn	700 Pennsylvania Avenue	1947	CCSF owned, under jurisdiction of SFMTA	Technical and Professional Maintenance Shops, Storage, and Administration
	Scott	15th Street and Division Street	1990	CCSF owned, under jurisdiction of SFMTA	Storage and Maintenance of Non-Revenue Vehicle Fleet
	Burke	1570-1580 Burke Avenue	1969; occupied by SFMTA in 2005	CCSF owned, under jurisdiction of SFMTA	Central Storage and Future Site of Overhead Lines
	Duboce Non-Revenue Track	Duboce, between Market and Church	n/a	CCSF owned, under jurisdiction of DPW, SFMTA Occupied	Temporary Storage of Light Rail Vehicles and Historic Streetcars; Light Maintenance
NON-VEHICLE MAINTENANCE	Overhead Lines	1401 Bryant Street	1893; acquired by Muni in 1944	CCSF owned, under jurisdiction of SFMTA	Storage of Parts and Service Vehicles dedicated to Overhead Lines
	Sign, Meter, & Temporary Sign Shops	1508 Bancroft Street	2012	CCSF owned, under jurisdiction of SFMTA	Professional and Technical Shops
	Paint & Meter Parking	1538 Yosemite Street	2012	Leased by CCSF on behalf of SFMTA	Paint Shops and SSD Shops' Trucks
	Traffic Signal Shop	2650 Bayshore Boulevard	2013	Leased by CCSF on behalf of SFMTA	Video Shop, Professional and Technical Shop
PARKING ENFORCEMENT	Parking Enforcement	571 10th Street	2000	Leased from Caltrans by CCSF on behalf of SFMTA	Storage of 10 GO-4's, 2 passenger vehicles, 4 boot vans & 2 pickup trucks
	Parking Enforcement Office	505 7th Street	2008	Leased by CCSF on behalf of SFMTA	Administration office and storage of 4 passenger vehicles
	Parking Enforcement	6th Street and Townsend Street	2002	Leased from Caltrans by CCSF on behalf of SFMTA	Storage of 208 GO-4 vehicles, 18 passenger cars, 1-12 passenger van; 1 mobile library type van
	Parking Enforcement	2323 Cesar Chavez Street	n/a	SF Public Works; leased by SFMTA	Storage of 43 GO-4's & 2 passenger cars
	Parking Enforcement	450 7th Street	n/a	Leased from Caltrans	Storage of 18 passenger cars
	Parking Enforcement	Scott Lot (Harrison & 15th)	1990	n/a	Storage of 14 GO-4's
TOWED CARS	Towed Cars (short term)	450 7th Street	n/a	Caltrans; leased by SFMTA	Primary Storage of towed abandoned and illegally parked vehicles averaging 300 vehicles during peak times.
	Towed Cars (long term)	2650 Bayshore Blvd., Daly City	2012	Leased by CCSF on behalf of SFMTA	Required to have at least 300 spaces for police tows, 100 of which must be indoors

Table 7. (Continued) SFMTA Administrative, Operating, Maintenance, Fueling, Vehicle Storage and Staging Facilities

	FACILITY NAME	LOCATION	YEAR OPEN	SITE OWNERSHIP	FACILITY CAPACITY
PARKING GARAGES	16th & Hoff Garage	42 Hoff Street	1986	CCSF owned, under jurisdiction of SFMTA	98 parking spaces
	Civic Center Garage	355 McAllister Street	1958	CCSF owned, under jurisdiction of SFMTA	843 parking spaces
	Ellis-O'Farrell Garage	123 O'Farrell Street	1964	CCSF owned, under jurisdiction of SFMTA	950 parking spaces
	5th and Mission/Yerba Buena Garage	833 Mission Street	1957	CCSF owned, under jurisdiction of SFMTA	2585 parking spaces
	Golden Gateway Garage	250 Clay Street	1965	CCSF owned, under jurisdiction of SFMTA	1095 parking spaces
	Japan Center Garage	1610 Geary Boulevard	1965	CCSF owned, under jurisdiction of SFMTA	920 parking spaces
	Lombard Garage	2055 Lombard Street	1987	SFUSD owned ¹	205 parking spaces
	Mission-Bartlett Garage	3255 21st Street	1983	CCSF owned, under jurisdiction of SFMTA	350 parking spaces
	Moscone Center Garage	255 3rd Street	1984	CCSF owned ²	732 parking spaces
	North Beach Garage	735 Vallejo Street	1997	CCSF owned ²	203 parking spaces
	Performing Arts Garage	360 Grove Street	1983	CCSF owned ²	598 parking spaces
	Pierce Street Garage	3252 Pierce Street	1970	CCSF owned, under jurisdiction of SFMTA	116 parking spaces
	Polk-Bush Garage	1399 Bush Street	1990	CCSF owned ²	129 parking spaces
	Portsmouth Square Garage	733 Kearny Street	1960	CCSF owned, under jurisdiction of SFMTA	504 parking spaces
	San Francisco General Hospital Medical Center Garage	2500 24th Street	1996	CCSF owned ²	1657 parking spaces
	St. Mary's Square Garage	433 Kearny Street	1952	CCSF owned, under jurisdiction of SFMTA	414 parking spaces
	Sutter-Stockton Garage	444 Stockton Street	1959	CCSF owned, under jurisdiction of SFMTA	1865 parking spaces
Union Square Garage	333 Post Street	1941	CCSF owned, under jurisdiction of SFMTA	985 parking spaces	
Vallejo Street Garage	766 Vallejo Street	1969	CCSF owned, under jurisdiction of SFMTA	163 parking spaces	
PARKING LOTS	18th Ave./Geary Lot	421 18th Avenue	n/a	CCSF owned, under jurisdiction of SFMTA	34 metered spaces
	18th St./Collingwood Lot	4116 18th Street	n/a	CCSF owned, under jurisdiction of SFMTA	28 metered spaces
	19th Ave./Ocean Lot	3000 19th Avenue	n/a	CCSF owned, under jurisdiction of SFMTA	20 metered spaces
	20th Ave./Irving Lot	1275 20th Avenue	n/a	CCSF owned, under jurisdiction of SFMTA	24 metered spaces
	24th St./Noe Lot	4061 24th Street	n/a	CCSF owned, under jurisdiction of SFMTA	16 metered spaces
	7th Ave./Irving Lot	1340 7th Avenue	n/a	SFUSD owned ³	36 metered spaces
	7th St./Harrison Lot	415 7th Street	n/a	CCSF owned, under jurisdiction of SFMTA	205 metered spaces
	8th Ave./Clement Lot	324 8th Avenue	n/a	CCSF owned, under jurisdiction of SFMTA	26 metered spaces
	9th Ave./Clement Lot	330 9th Avenue	n/a	CCSF owned, under jurisdiction of SFMTA	21 metered spaces
	9th Ave./Irving Lot	1325 9th Avenue	n/a	CCSF owned, under jurisdiction of SFMTA	41 metered spaces
	California/Steiner Lot	2450 California Street	n/a	CCSF owned ²	48 metered spaces
	Castro/18th St. Lot	457 Castro Street	n/a	CCSF owned, under jurisdiction of SFMTA	20 metered spaces
	Felton/San Bruno Lot	25 Felton Street	n/a	CCSF owned, under jurisdiction of SFMTA	10 metered spaces
	Geary/21st Ave. Lot	5732 Geary Boulevard	n/a	CCSF owned, under jurisdiction of SFMTA	21 metered spaces
	Lilac/24th St. Lot	1 Lilac Street	n/a	CCSF owned, under jurisdiction of SFMTA	18 metered spaces
	Norton/Mission Lot	20 Norton Street	n/a	CCSF owned, under jurisdiction of SFMTA	28 metered spaces
	Ocean/Junipero Serra Lot	2500 Ocean Avenue	n/a	CCSF owned, under jurisdiction of SFMTA	20 metered spaces
Ulloa/Claremont Lot	807 Ulloa Street	n/a	CCSF owned, under jurisdiction of SFMTA	23 metered spaces	
West Portal/14th Ave. Lot	174 West Portal Avenue	n/a	CCSF owned, under jurisdiction of SFMTA	19 metered spaces	

¹ SFUSD owned, site improvements owned by CCSF, under jurisdiction of SF Parking Authority, pending transfer to SFMTA

² CCSF owned, under jurisdiction of the SF Parking Authority, pending transfer to SFMTA

³ SFUSD owned, site improvements owned by CCSF, under jurisdiction of SFMTA

STATIONS & STOPS

In addition to the facilities needed to operate transit service, the SFMTA maintains approximately 3,500 transit stops in San Francisco. In April 2015, the SFMTA adopted a new policy for the Rapid Network transit stops. Over the course of the next several years, the SFMTA and its partners will install: additional signage and transit service branding at Rapid and Metro shelters to make finding and

navigating the Muni network easier; transit poles outfitted with solar powered lanterns visible day or night; redesigned flag signs to better identify route information, intersection names and real-time arrival details; and bright red chevron-style decals to identify it as a Rapid stop. New bicycle racks at Rapid stops will allow for the convenience of Park & Ride and help distribute waiting riders more evenly between the front and rear doors.



Muni Forward Rapid Bus Stop Branding

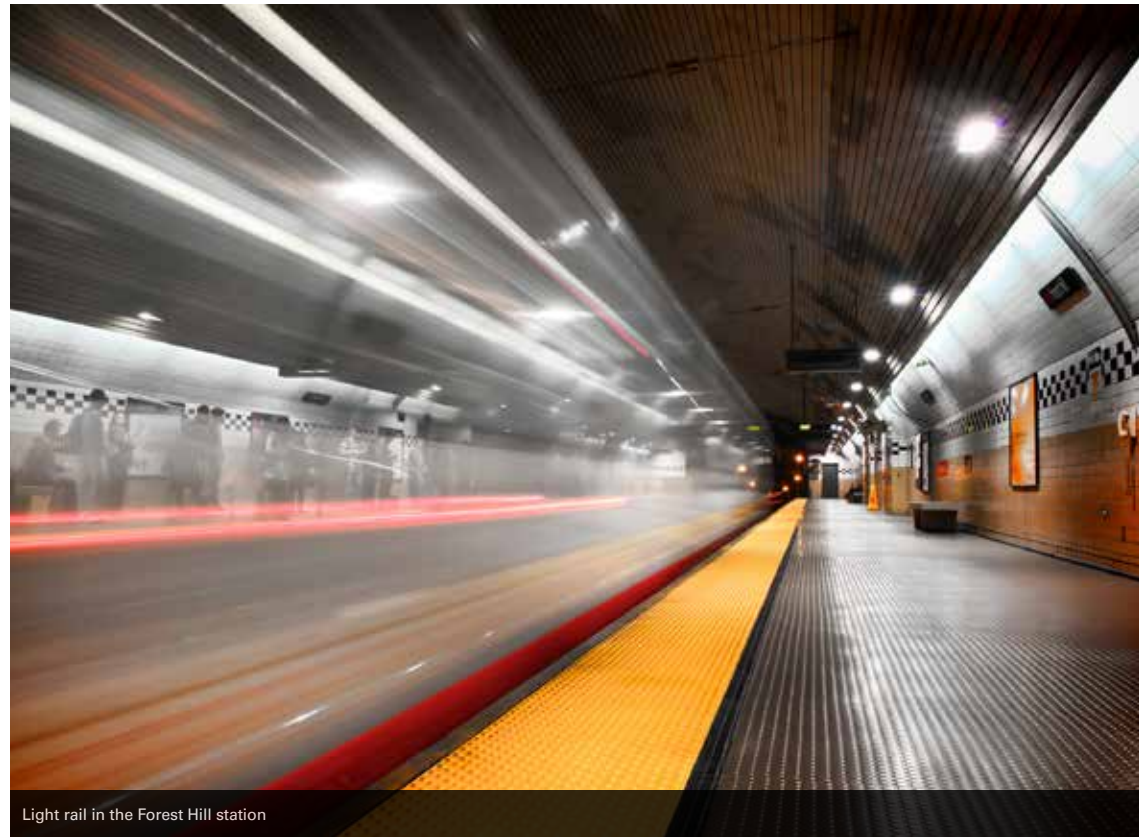
Table 8. SFMTA Stations and Stops

	TYPE	LOCATIONS	YEAR IN USE	BASIC AMENITIES
Muni Metro & Rapid Bus	Surface Rapid Bus Stops	At most surface transit locations in San Francisco in residential, commercial and industrial areas.	2015	SFMTA red “wave” shelter; transit poles outfitted with solar powered lanterns; flag signs for route information, intersection names and real-time arrival details; bright red chevron-style decals to signal a Rapid stop; new bicycle racks
	Muni Metro Stations	The Muni Metro stations from West Portal to The Embarcadero are underground. The downtown subway stations (between Civic Center and The Embarcadero) are shared by Muni and the Bay Area Rapid Transit District (BART). These stations are multi-level, with a concourse level, a Muni boarding platform at mid-level and a BART platform at the lowest level. With the exception of Forest Hill, all Muni Metro stations were constructed in conjunction with BART and are BART-owned.	1980 (all except Forest Hill); 1918 (Forest Hill)	In the underground stations (Embarcadero, Montgomery, Powell, Civic Center, Van Ness, Church, Castro, Forest Hill and West Portal), a digital voice announcement system announces the route designation and arrival time of approaching and arriving trains. All underground stations are accessible by elevator. Stairs and/or an escalator are located at each end of every downtown station. Digital signs that provide real-time arrival information are available at Metro stations.
	T Third Surface Stations	Surface stops along the T Third line on The Embarcadero, King Street, Third Street, and Bayshore Boulevard.	1998 (The Embarcadero and King Street stations); 2007 (Third Street and Bayshore Blvd. stations)	All stations were designed in line with the distinctive T Third branding. They are all accessible and equipped with transit shelters with digital signs that provide real-time arrival information.
	Other Surface Light Rail Stops	Outside of the Market Street Subway, Twin Peaks Tunnel and Sunset Tunnel, the light rail vehicles operate on the surface.	Varied	In addition to the standard Rapid Network Stop amenities listed above, key surface light rail stops provide ramps to facilitate wheelchair access. On the M Ocean View line, the accessible stop at San Jose and Geneva avenues has a mechanical wayside lift that elevates customers to the level of the train floor for boarding and exiting.
Frequent, Grid, Connector, Specialized	Transit Stops	At most surface transit locations in San Francisco in residential, commercial and industrial areas.	Varied	Stops with 125 daily boardings have a shelter within environmental constraints. Many shelters are equipped with digital signs that provide real-time arrival information. Many of these shelters also have “push-to-talk” buttons that, when pressed, provide a voice announcement of the arrival times displayed on the digital sign. In 2015, the SFMTA and its partners also started the installation of transit poles outfitted with solar powered lanterns and flag signs for route information.
	Flag Stops	In residential areas and other low traffic locations where Muni will stop in the street rather than pull to the curb.	Varied	The bus stop is marked with yellow paint on a nearby pole and in the street where the bus will stop. In 2015, the SFMTA and its partners also started the installation of transit poles outfitted with solar powered lanterns and flag signs for route information.
Historic	F Market Historic Street Car Stops	Stops along The Embarcadero and on Market Street between Stuart Street and Castro Street.	1995 (Market Street), 2000 (The Embarcadero)	All include an accessible wayside boarding platform. Between Van Ness Avenue and Stuart Street accessible stops are located at key locations along lower Market Street: wayside platforms at 7th, 3rd and Main streets and Don Chee Way (inbound); wayside platforms are at Don Chee Way, Drumm, Kearny and Hyde streets and Van Ness Avenue (outbound). Accessible lifts are located at inbound stops at Market and Church streets, Market and 5th streets and Market and 1st streets, and at the outbound stop adjacent to Hallidie Plaza.
	Cable Car Stops	Placed along the three cable car lines.	Varied	Riders can board at any cable car turntable (the beginning/end of each route) or anywhere a cable car sign is posted.

MUNI METRO FIXED GUIDEWAY INFRASTRUCTURE

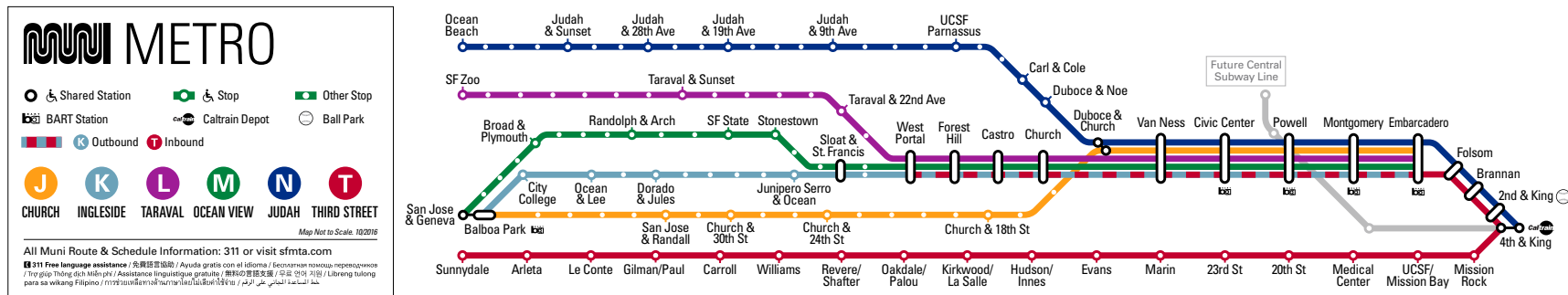
With an average weekday ridership of more than 150,000 boardings on fixed route transit in FY 2015, Muni Metro is the United States' third-busiest light rail system after Boston and Los Angeles, operating a fleet of 149 light rail vehicles (LRV). The Muni Metro system consists of 71.5 miles (115.1 km) of standard gauge track, six light rail lines, three tunnels, nine subway stations, twenty-four surface stations and eighty-seven surface stops.

In addition to the light rail track way, the SFMTA is in the planning and design phases for several bus rapid transit way projects (including Van Ness Avenue, Geary Boulevard, and 22 Fillmore on 16th Street) and has identified approximately 40 additional miles of transit priority streets in San Francisco.



Light rail in the Forest Hill station

Figure 6. San Francisco Municipal Railway Service Map, as of December 2016



BICYCLE FACILITIES

The SFMTA is working to make bicycling a part of everyday life in San Francisco. As part of this ongoing work, the SFMTA Sustainable Streets Division is implementing on- and off-street facilities and infrastructure to make the city safer for all road users, whether they are on bicycles, walking, driving, or on transit. Bicycle projects are developed based on the recommendations and methodology in the 2013 SFMTA Bicycle Strategy which combines efficient asset management and cost-effective new investments to help the agency reach its quality of life goals. A key factor in this analysis is the “level of traffic stress” that people on bicycles experience when navigating the streets of San Francisco. Using this methodology to identify future projects will further the city’s ultimate goal to create a network that is comfortable for all users. It will also ensure that the bicycle network and the transit network coordinates and complements one another to provide excellent transportation choices in San Francisco.

As of May 2016, the SFMTA had installed:

- 434.32 miles of bicycle facilities
- 4,053 sidewalk racks, 8,106 bike parking spaces
- 72 on-street corrals with 402 bicycle racks, 804 bike parking spaces
- 48 bike lockers
- 35 bikesharing stations

Figure 7. San Francisco Bikeway Network Map, as of July 2016



The 2013 SFMTA Bicycle Strategy can be found on the SFMTA website at: http://sfmta.com/sites/default/files/BicycleStrategyFinal_0.pdf

BICYCLES ON TRANSIT VEHICLES AND AT TRANSIT STOPS

The SFMTA is a multimodal agency and integrates transit, walking, and bicycling infrastructure to provide travel choices for the residents, workers, and visitors to San Francisco. The bicycle network supports access to transit and provides an alternative to transit in corridors that are at or near capacity. In addition to multimodal street enhancements, all Muni buses in regular service have external bike racks able to hold two bikes each. Historic streetcars, cable cars, and Muni Metro light rail vehicles do not have bike racks and full-size bicycles are not currently permitted on those vehicles. Only folding bicycles are allowed inside all Muni vehicles (with the exception of cable cars). They must be folded and kept with their owner, and must not be placed on or block seats, interfere with customer movement, or block wheelchair access and movement.



BIKE LOCKERS IN SFMTA GARAGES & PARKING LOTS

The SFMTA administers and maintains 48 bicycle lockers in six city-owned garages and parking lots, mainly downtown. As of 2016, all of the SFMTA-operated bike lockers are on-demand e-lockers that serve up to ten times more people than traditional keyed lockers.



BICYCLE PARKING AT MUNI RAPIDTRANSIT STOPS

The Rapid Network will include new signage and transit service branding to help convey to customers where different types of transit service is accessible. Just outside the transit shelter at Rapid stops, new bicycle racks allow for the convenience of Park & Ride and serve as anti-cluster anchors – helping to distribute waiting riders more evenly between the front and rear doors.



ON-STREET BICYCLE CORRALS

Often requested by area merchants and residents, bicycle corrals provide bike parking on-street in the general parking and loading lane. Over the past several years, as transit service has been updated, the SFMTA has installed several corrals in discontinued bus zones.




BAY AREA BIKESHARE IN TRANSIT RICH AREAS

In 2013, Bay Area Bike Share, a multi-agency public-private partnership, launched a pilot regional bike share system in the dense, transit-rich Downtown and SoMa areas of San Francisco and along the Caltrain corridor in four other Peninsula and South Bay cities. With the support of a title sponsor, the operator of Bay Area Bike Share plans to extend service to the East Bay and expand the program in San Francisco and San Jose beginning in Spring 2017. In San Francisco, the expanded system should ultimately cover approximately 23 square miles with at least 320 stations and 4,500 bikes.



BICYCLES ON MUNI

Bike racks on motor and trolley coaches are available during all hours of operation, on a first come, first served basis, with a limit of two bikes per rack. No service charge or permit is needed.

A streetcar is traveling down Market Street in San Francisco. The street is lined with buildings, including a prominent church with a tall steeple on the left. A green street sign for 'Market' is visible on the right. A rainbow flag banner hangs from a building on the right. A sign that says 'EXCEPT MUNI' is also visible. The streetcar is on a red-paved track. Pedestrians are walking on the sidewalks, and cars are parked along the street.

In 2011-2012, the SFMTA updated the agency's Strategic Plan and developed a new vision for San Francisco's transportation system. This updated plan better integrates the key elements and performance metrics defined in the long-range transportation plans required by the United States Department of Transportation (USDOT) and the Metropolitan Transportation Commission (MTC), clarifying objectives and aiding in the prioritization and programming of state and federal funding.

SFMTA GOALS, OBJECTIVES & STANDARDS

As California cities move forward in partnership with the State to implement the policy objectives embodied in Assembly Bill 32, the California Global Warming Solutions Act of 2006, and Senate Bill 375, the Sustainable Communities and Climate Protection Act of 2008, San Francisco stands at the forefront of innovation in seeking to bring these transformative policy commitments to reality.

San Francisco's transit system, Muni, currently carries approximately 230 million customers a year. In the next 25 years, San Francisco's population is expected to swell to over one million people while growth in both jobs and housing is projected at 35 percent. To prepare for and respond to this growth along with the projected growth in the region, the SFMTA has established a six-year Strategic Plan to guide investment in the transportation network to improve travel choices, reduce congestion, maintain affordability, and keep our infrastructure in good condition.

THE SFMTA STRATEGIC PLAN

Within the framework of regional and state policies, the six-year SFMTA Strategic Plan defines a course for the agency to meet its mid- and long-term goals for service delivery and financial sustainability. As every two-year budget is approved, each division uses the Strategic Plan to prioritize work products, set milestones, and define performance measures for each employee through a performance evaluation plan in order to ensure consistency and accountability. Each Division Director also leads the implementation of at least one strategic objective, creating a continuous link from the plan's broader policies to the day-to-day work for SFMTA staff.

THE STRATEGIC PLANNING PROCESS

The FY 2013 – FY 2018 strategic goals were developed through a process led by the SFMTA Executive Team, with input from SFMTA staff and external stakeholders to determine the most important areas to focus the agency's future efforts. Derived from initial surveys with the general public and a focused strengths, weakness, opportunities, and threats (SWOT) analysis, five key themes consistently emerged as the highest priorities: 1. Customer service for all modes; 2. Internal and external communications; 3. Transportation network improvements for all modes; 4. Operating and capital financial sustainability; and 5. Organizational development. These key themes evolved into the four overarching goals of the Strategic Plan that shapes how the SFMTA focuses its attention, resources, and staff.

STAFF ENGAGEMENT

Using the information gathered from the workshops with internal and external stakeholders, the SFMTA Executive Team participated in a series of workshops of their own to brainstorm and draft a new vision, mission statement, and the four overarching goals with their related objectives. After every SFMTA Executive workshop, the directors presented the proposed plan elements to the SFMTA Stakeholder Group so that each of the plan elements were considered and discussed in depth by more than 60 SFMTA staff members from every part of the agency. The Executive Team then revised the element under discussion and moved to the next, achieving consensus on each. This cyclical approach to development and vetting allowed the SFMTA to develop the plan and get buy-in on each element from a large group in a very short timeframe. Additional outreach presentations, workshops and surveys were held at SFMTA facilities around the city to give all SFMTA staff, stakeholders, and partner agencies the opportunity to participate in the development process as well.

MONITORING & EVALUATION

The Strategic Plan serves as the foundation on which the agency will develop specific policies, programs, and projects over the course of six years. Every two years, the SFMTA will develop a list of actions, policies, and processes that would help the agency achieve its strategic goals and objectives, updating this list each budget cycle to take into account the progress made towards meeting each objective listed in the Strategic Plan. These initiatives and actions will inform the divisional and individual work plans for each section of the agency. This closed loop process will lead to full accountability at all levels and the achievement of our goals.

In addition to developing staff work plans to implement the Strategic Plan, SFMTA staff will also assess each decision brought to the SFMTA Board for conformance with the Strategic Plan. The summaries of the issue or project proposed to the SFMTA Board are required to include a description of how the project, policy, or contract directly advances the goals of the Strategic Plan and outline the impact of the proposed actions in meeting the Strategic Plan's targets.

DEVELOPMENT OF THE NEXT STRATEGIC PLAN

The current Strategic Plan sunsets at the end of FY 2018 and the SFMTA is beginning to lay the groundwork to build upon the current plan and establish the agency's priorities for the next plan. Similar to the current Strategic Plan, the next one will weave together the guiding principles and policies

For a complete discussion of the FY 2013 – FY 2018 SFMTA Strategic Plan, visit: <http://www.sfmta.com/about-sfmta/sfmta-strategic-plan>.

of the local, regional, state, and federal agencies into one strategic direction for the agency. The next Strategic Plan will also continue to support the major safety and reliability initiatives already underway. In addition, the Plan will respond to the major changes in the transportation sector and expand to include safety, reliability, and modernization of the SFMTA

campus. Ultimately, the next Strategic Plan will be developed in-house by SFMTA leadership and staff, and it will be a concise and impactful document that will align the agency's people, resources, and processes to meet its strategic goals.



Cover from FY 2013-2018 SFMTA Strategic Plan

SFMTA VISION:

San Francisco:
great city,
excellent
transportation
choices.

SFMTA MISSION STATEMENT:

We work together
to plan, build,
operate, regulate,
and maintain the
transportation
network, with
our partners,
to connect
communities.

FY2013-FY2018 STRATEGIC PLAN ELEMENTS

Although the general intent of the FY 2013 – FY 2018 SFMTA Strategic Plan remains consistent with the previous plan, all elements of the plan were updated to better address its broadened responsibilities, opportunities, and challenges since the development of the last plan in 2008.

The framework for the FY 2013 – FY 2018 SFMTA Strategic Plan focuses on a new vision and mission for the agency and the goals and objectives needed to achieve this vision. The development of strong strategic goals and objectives with specific targets and timeframes guides SFMTA divisions to develop initiatives and actions as part of the two-year budget.

SFMTA VISION & MISSION STATEMENT

The vision for the SFMTA identifies what the SFMTA wants to do as an agency and provide for the city by the end of FY 2018. Developed by the SFMTA Executive Team, the vision and mission statement are intended to be powerful statements to guide the agency. The vision statement conveys the agency's commitment to enable a range of choices in how to get around the city while the concise mission statement details what the SFMTA does and how the agency will realize the vision.

SFMTA Vision: San Francisco: great city, excellent transportation choices.

SFMTA Mission Statement: We work together to plan, build, operate, regulate, and maintain the transportation network, with our partners, to connect communities.

STRATEGIC PLAN GOALS & OBJECTIVES

As a result of the strategic planning process, the SFMTA stakeholders identified four key areas on which to focus agency efforts. Supporting these four strategic goals are 16 objectives that are the specific ways the agency will accomplish the goals. These goals and objectives are summarized below:

GOAL 1: CREATE A SAFER TRANSPORTATION EXPERIENCE FOR EVERYONE

The safety of the transportation system, its users and SFMTA employees are of the utmost importance to the agency. Creating a safer transportation experience for everyone means a secure and comfortable system for users of all transportation modes and SFMTA programs, as well as safe facilities and vehicles in which to work.

- Objective 1.1: Improve security for transportation system users
- Objective 1.2: Improve workplace safety and security
- Objective 1.3: Improve the safety of the transportation system

GOAL 2: MAKE TRANSIT, WALKING, BICYCLING, TAXI, RIDESHARING AND CARSHARING THE MOST ATTRACTIVE AND PREFERRED MEANS OF TRAVEL

As the city looks towards the future and estimates the growth of the city and the Bay Area region, the agency acknowledges the need for increased mobility for residents, workers and visitors without relying on private automobiles. The SFMTA is committed to making non-private auto modes of transportation not just a viable option, but the preferred means of travel in San Francisco.

- Objective 2.1: Improve customer service & communications
- Objective 2.2: Improve transit performance
- Objective 2.3: Increase use of all non-private auto modes
- Objective 2.4: Improve parking utilization and manage parking demand

GOAL 3: IMPROVE THE ENVIRONMENT AND QUALITY OF LIFE IN SAN FRANCISCO

One of the keys to a good quality of life is access to a green, clean, efficient, affordable and cost-effective transportation system. With the inclusion of this goal in the Strategic Plan, the SFMTA is committed to understanding the needs of those that use the system. The agency is also committed to allocating resources more effectively and reducing the structural deficit while maintaining a system that will reliably provide connectivity for people and businesses.

- Objective 3.1: Reduce the agency's and the transportation system's resource consumption, emissions, waste, and noise
- Objective 3.2: Increase the transportation system's positive impact to the economy
- Objective 3.3: Allocate capital resources effectively
- Objective 3.4: Deliver services efficiently
- Objective 3.5: Reduce capital and operating structural deficits

GOAL 4: CREATE A COLLABORATIVE ENVIRONMENT TO SUPPORT DELIVERY OF OUTSTANDING SERVICE

The combination of the Municipal Railway, the Department of Parking and Traffic, and the Taxi Commission into one transportation agency has challenged the SFMTA to come together as one agency to support a range of transportation choices for San Francisco. In order to deliver outstanding

services, the SFMTA must create a collaborative and engaging work environment that trains, encourages and supports its staff at all levels, while holding each other and the agency accountable.

Objective 4.1: Improve internal communications

Objective 4.2: Create a collaborative and innovative work environment

Objective 4.3: Improve employee accountability

Objective 4.4: Improve relationships and partnerships with our stakeholders



The first two information gathering workshops brought together internal and external SFMTA stakeholders to determine the most important areas to focus the agency's future efforts and resources.



SFMTA staff assessed the implementation of the Strategic Plan during the first two-year budget cycle. This staff assessment was critical in determining the next steps for the agency to meet its goals and objectives.

SFMTA PERFORMANCE MEASURES

Under the City and County of San Francisco Charter, Sec. 8A.103, Service Standards and Accountability, the SFMTA is required to meet the following minimum standards for transit service:

- On-time performance: at least 85 percent of vehicles must run on-time, where a vehicle is considered on-time if it is no more than one minute early or four minutes late as measured against a published schedule that includes time points; and
- Service delivery: 98.5 percent of scheduled service hours must be delivered, and at least 98.5 percent of scheduled vehicles must begin service at the scheduled time.

The City Charter also stipulates that the SFMTA Board of Directors adopt standards for system reliability, system performance, staffing performance, customer service, and sustainability. The SFMTA has developed a comprehensive list of performance measures including: the City Charter mandates, the Strategic Plan Key Performance Indicators (KPIs) that relate directly to the achievement of each Strategic Plan objective, and those stipulated through the regional Transit Sustainability Project.

STRATEGIC PLAN KEY PERFORMANCE INDICATORS

After the update to the Strategic Plan elements in 2012, the SFMTA Leadership Team and the SFMTA Performance Metrics Team revised the performance metrics for the agency. Specific targets for the key performance indicators (KPIs) for each budget cycle were included in the Strategic Plan to underscore the

importance of implementation, accountability, and reporting for the agency.

A key method in regularly evaluating the progress in meeting these targets is the regular monitoring and reporting on the KPIs to the SFMTA Board's Policy and Governance Committee (PAG). These monthly meetings give agency staff, the PAG members and the general public the chance to review and discuss the KPIs and other performance metrics that the agency tracks. In addition to monthly reports to PAG, the SFMTA reports on these indicators and ongoing projects and initiatives in the agency's Annual Report.

The City Charter also requires that an independent auditor perform the review of performance data every two years to ensure that it is being accurately collected and reported, and to make recommendations for improved reporting. Based in part on recommendations from the audit, the SFMTA will periodically make proposed revisions to performance metrics and their targets for the consideration of the PAG.

For more information and monthly data reports on all agency performance measures, visit the SFMTA's performance webpage: <http://www.sfmta.com/performance>

The current SFMTA Annual Report is available online: <http://www.sfmta.com/annualreport>.

Table 9 provides a snapshot of the Key Performance Indicator Targets for each of the Objectives in the Strategic Plan. For SFMTA performance towards Key Performance Indicators and supporting metrics over the last three fiscal years, please refer to Table 12.

Table 9. Strategic Plan Key Performance Indicators

KEY PERFORMANCE INDICATORS	TARGETS		
	FY 2014	FY 2016	FY 2018
Goal 1: Create a safer transportation experience for everyone			
1.1: # of SFPD-reported transit system related crimes (i.e. assaults, thefts, etc.)/100,000 miles	Achieve 10% reduction in incidents each budget cycle		
1.2: # of workplace injuries/200,000 hours (100 FTEs)	Achieve 10% reduction in incidents each budget cycle		
1.3: # of Muni collisions/100,000 miles	Achieve 10% reduction in incidents each budget cycle		
Goal 2: Make transit, walking, bicycling, taxi, ridesharing and carsharing the most attractive and preferred means of travel			
2.1: Customer rating: Overall customer satisfaction. Scale of 1 (low) to 5 (high)	Improve satisfaction rating by 0.2 points over baseline each budget cycle ¹		
2.2: Percent of transit trips that have less than a 2-minute spacing between vehicles by line and route on the Rapid Network("bunches") Percent of transit trips where gaps in service exceed scheduled headway by more than 5 minutes by line and route on the Rapid Network ("gaps")	Reduce gaps by 25%	Reduce gaps by 45%	Reduce gaps by 65%
2.3: Mode Share	FY 2018 mode split goal - private auto: 50%; non-private auto modes: 50%		
2.4: % of metered hours with no rate change in SFpark pilot areas	Achieve 65% of metered hours with no rate change ¹		
Goal 3: Improve the environment and quality of life in San Francisco			
3.1: SFMTA carbon footprint (metric tons CO2e)	Reduce SFMTA greenhouse gas emissions 80% below 1990 levels by end of 2018 ¹		
3.2: Muni average weekday boardings	Increase Muni Ridership ¹		
3.3: % of projects delivered on-time and on-budget by phase	Establish baseline and reach 10% improvement over baseline each budget cycle		
3.4: Passengers per Revenue Hour	Achieve 3% growth in passengers per revenue hour by end of FY 2018 ¹		
3.5: Operating and capital (State of Good Repair) structural budget deficit	Make progress towards closing operating and State of Good Repair structural deficits ¹		
Goal 4: Create a collaborative environment to support delivery of outstanding service			
4.1: Employee rating: Do you feel you have the information you need to do your job? Do you feel informed about agency issues, challenges and current events? Scale of 1 (low) to 5 (high)	Improve employee rating by 0.2 points over baseline by end of FY 2018		
4.2: Employee rating: Overall employee satisfaction. Scale of 1 (low) to 5 (high)	Improve employee rating by 0.2 points over baseline by end of FY 2018		
4.3: % of employees with performance plans prepared by the start of fiscal year; % of employees with annual appraisals based on their performance plans	100% of employees with performance plans at the start of the fiscal year; 100% of employees with annual performance appraisals completed and submitted to Human Resources by completion of the fiscal year		
4.4: Stakeholder rating: Satisfaction with SFMTA decision-making process and communications. Scale of 1 (low) to 5 (high)	Improve satisfaction rating by 0.2 points over baseline by end of FY 2018 ¹		

¹These metrics or targets were modified in August 2016



Table 10. Transit Sustainability Project Annual Monitoring Process

YEAR	ACTION
FY 2013	Transit agencies are to adopt a strategic plan to meet one or more of the targets and submit to MTC.
FY 2014	Starting this year, the transit agencies submit performance measure data on all three targets to MTC on an annual basis
FY 2015	MTC analyzes agency progress in meeting targets
FY 2016	MTC links existing and new operating and capital funds administered by MTC to progress towards achieving the performance target

TRANSIT SUSTAINABILITY PROJECT

Established by the Metropolitan Transportation Commission's (MTC) Resolution 4060 in 2012, the Transit Sustainability Project (TSP) was developed to focus on the financial health, service performance, and institutional frameworks of the San Francisco Bay Area's transit operators. Given the significant projected capital and operating budget shortfalls, the need to improve transit performance, and interest in attracting new riders to the system, the MTC formed a steering committee to guide the TSP processes and recommendations. Made up of representatives from transit agencies, government bodies, labor organizations, businesses, and environmental and equity stakeholders, this group developed performance measures and investment recommendations for the Bay Area's transit operators.

Within the framework of the Transit Sustainability Project, the seven largest transit agencies in the Bay Area must achieve a 5 percent real reduction in at least one of the following performance measures by Fiscal Year (FY) 2017, with no growth beyond that of the Consumer Price Index (CPI) thereafter:

- Cost Per Service Hour
- Cost Per Passenger
- Cost Per Passenger Mile

For these measures, the baseline year is set at the highest cost year between FY 2008 and FY 2011. The MTC also has developed the following structured annual monitoring process for the seven largest transit operators in the Bay Area. The SFMTA regularly reports on its good-faith efforts to meet one or more of the TSP Cost Reduction Metrics as the Productivity Improvement Project (PIP) for SFMTA as required under State law. The report also describes the major initiatives that the agency is taking to increase ridership and/or contain operating costs, including Muni Forward, identifying new revenue sources to implement transportation improvements throughout the city and through labor negotiations.

MONITORING & ACHIEVING TRANSIT SUSTAINABILITY PROJECT TARGETS

In order to achieve the TSP targets, the SFMTA must lower inflation-adjusted costs in relation to revenue vehicle hours, passenger miles, and/or unlinked trips. Costs can still increase but not as quickly as the increase in vehicle hours, passenger miles or unlinked trips.

While the SFMTA has not yet achieved a real reduction in unit operating costs, the agency has kept inflation-adjusted increases in Operating Costs per Passenger Mile and per Unlinked Trip relatively stable (0.5 percent or less annually) considering that the agency has implemented a significant 10 percent service increase and bolstered system maintenance.

Over the long term, the SFMTA does not anticipate that inflation-adjusted unit operating costs will decrease. As San Francisco's population and employment grow, the demand for public transportation will increase which may require higher funding investments. The SFMTA plans to address these challenges, increase ridership, and contain operating costs

through the implementation of the Muni Forward transit infrastructure projects, the support of the Transportation 2030 initiatives, balanced and fair labor contract negotiations, and motor coach, trolley coach, and light rail vehicle procurement

- **Large State of Good Repair needs** – As a system with over a century of service, San Francisco's transit system has significant needs to restore its assets to ensure safe and reliable service. This translates into higher operating costs due to older equipment and facilities. With a backlog estimated at \$2.41 billion, the SFMTA requires an investment of \$586 million per year to eliminate the backlog within 20 years. Though the SFMTA and the City and County of San Francisco are pursuing new funding options, many improvements and their beneficial impacts on the operating budget will not be realized before FY 2017.

***ACTION:** As part of the Full-Funding Grant Agreement for the Central Subway project, the SFMTA has committed to investing an average of \$250 million annually on State of Good Repair projects. These funds are primarily directed towards "Transit Service Critical" investments and are also distributed between upcoming SGR needs and the SGR backlog of \$2.4 billion. In 2016, the SFMTA issued an update to the State of Good Repair Report that provides a comprehensive analysis of the agency's rehabilitation and replacement needs and investments. Through December 2016, SFMTA's expenditures made towards a state of good repair are trending upward and are on pace to exceed the \$250M annual expenditure target by the end of the fiscal year (June 30, 2017). This is primarily due to investments related to the replacement of our rubber tire and light rail fleets. Looking at future*

fiscal years, there are planned investments in facilities related projects which will help sustain the agency's average above the \$250 million annual target.

- **Fleet** – The SFMTA is currently in the process of modernizing its entire rubber tire and light rail vehicle fleet. In the meantime, it continues operating older vehicles, which impacts maintenance and operating costs.

***ACTION:** By mid-2019 the SFMTA will replace the entire rubber tire fleet and begin to put new LRVs into service. This investment in the transit fleet will improve transit reliability and reduce unit maintenance and operating costs.*

- **Limited System and Vehicle Capacity** – Increasing ridership can lower unit costs if there is sufficient capacity on vehicles to absorb new customers. However, the Muni rail system is already at capacity at certain times of the day and Muni buses are some of the most crowded in the nation. To reduce crowding, the SFMTA has been adding service. From a performance accounting perspective, crowding reduction results in lower customer loads per vehicle, which increases Operating Costs per Passenger Mile or per Unlinked Trip – but has a significant benefit to customer comfort and ultimately provides the capacity for long-term ridership growth. Increasing ridership in the future will necessitate increased service and costs.

***ACTION:** Through the Muni Forward portfolio of projects, the SFMTA is changing service to increase frequency and ease crowding on popular routes.*

- **Increasing maintenance needs** – In order to reduce mechanical breakdowns and improve system reliability, the SFMTA is focusing on increased bus maintenance, rail maintenance and maintenance-of-way activities. Investing in maintenance support increases unit operating costs but is necessary to improve reliability beyond the five-year TSP timeframe.

***ACTION:** Performing the recommend maintenance in a timely manner will help keep the fleet on the road and reduce the likelihood of costly breakdowns. Also, the planned capital investment in replacing the Muni fleet should lead to an overall reduction in operating costs as maintenance needs are reduced.*

- **Funding Sources** – Voters in 2016 supported transportation improvements (Proposition J) but rejected the sales tax that would have provided the funding (Proposition K).

***ACTION:** The Mayor has reconvened a transportation task force to evaluate options for transportation funding for a potential 2018 ballot measure.*

- **Labor Contract Negotiations** – Employee wages and benefits are a major factor in determining operating costs. Changes to labor contracts will have a significant impact on the extent to which the SFMTA will be able to achieve these targets.

***ACTION:** The SFMTA will continue to negotiate and enter into labor contracts that are fair to all parties involved.*

Several of the actions listed here require substantial investment in the transit system and may lead to increases in operating costs in the short term. However, they are critical to the agency's long-term success in meeting the intent of the MTC's Transit Sustainability Project.

GUIDING POLICY: VISION ZERO

Vision Zero is San Francisco's policy commitment to eliminate all traffic-related fatalities by 2024.

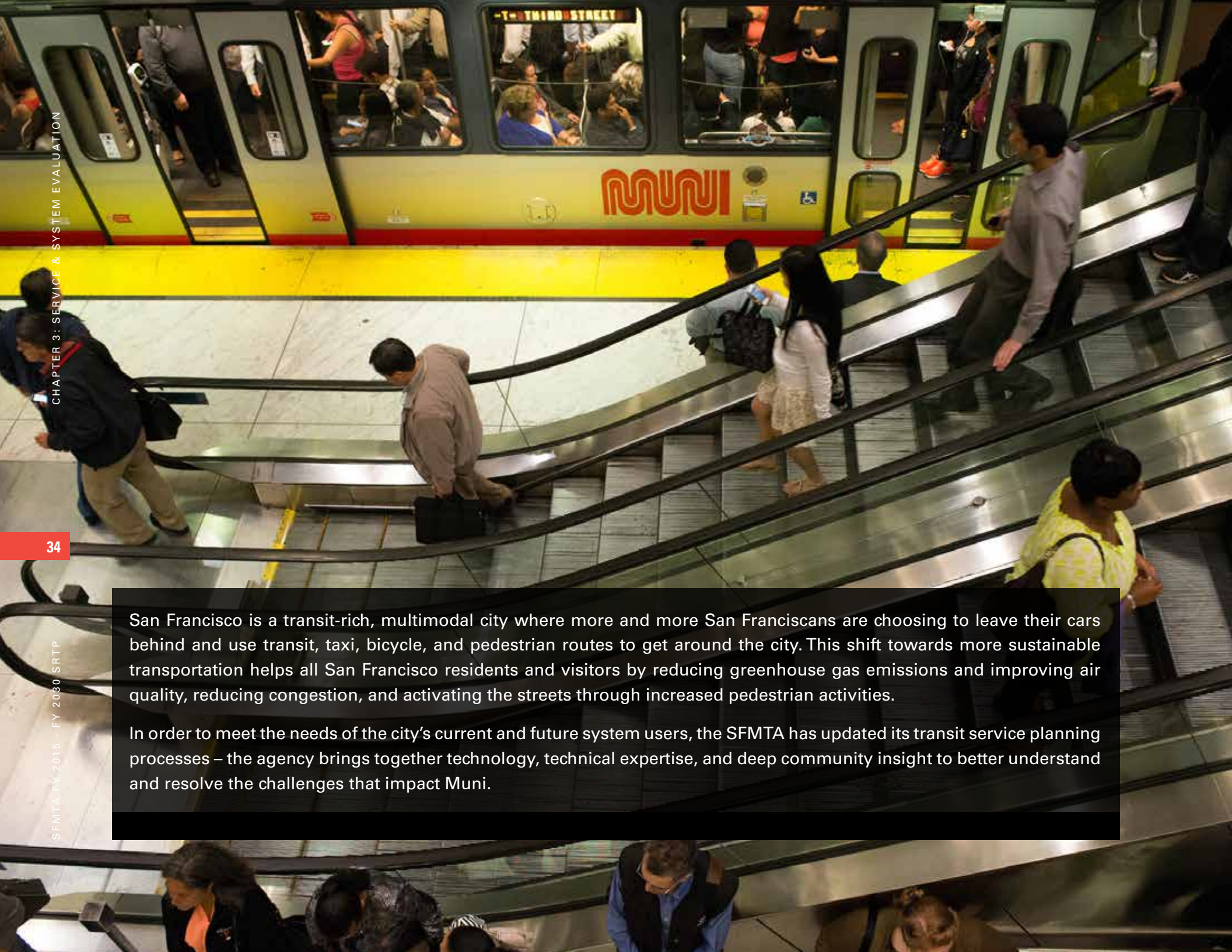
On average, 30 people are killed and 500 more are hospitalized in traffic crashes each year in San Francisco.

San Francisco believes all traffic fatalities are preventable, and by working to protect our most vulnerable road users, we will build a safer transportation system with safe streets, safe people and safe vehicles.

Read more about Vision Zero at <http://visionzerosf.org>

The State of Good Repair Report provides a comprehensive analysis of the agency's rehabilitation and replacement needs and investments: <http://www.sfmta.com/about-sfmta/reports/state-good-repair-report-february-2015>.

The SFMTA FY 2017 – FY 2021 Capital Improvement Program has more information on the planned infrastructure upgrades, fleet procurement, and other capital investments that will help the agency meet its Transit Sustainability Project's (TSP) goals: <https://www.sfmta.com/about-sfmta/reports/fy-2017-2021-capital-improvement-program>.



San Francisco is a transit-rich, multimodal city where more and more San Franciscans are choosing to leave their cars behind and use transit, taxi, bicycle, and pedestrian routes to get around the city. This shift towards more sustainable transportation helps all San Francisco residents and visitors by reducing greenhouse gas emissions and improving air quality, reducing congestion, and activating the streets through increased pedestrian activities.

In order to meet the needs of the city's current and future system users, the SFMTA has updated its transit service planning processes – the agency brings together technology, technical expertise, and deep community insight to better understand and resolve the challenges that impact Muni.

SERVICE & SYSTEM EVALUATION

CURRENT SYSTEMWIDE PERFORMANCE

In 2014, the SFMTA concluded an extensive evaluation of its system under the Transit Effectiveness Project (TEP).

The TEP was an in-depth planning process that brought together technology, technical expertise, and deep community insight to better understand and thus better solve the problems affecting San Francisco's transit network, and represented the first major evaluation of the Muni system in 30 years. In March 2014, the SFMTA Board of Directors approved the majority of recommendations that emerged from this planning process, including an overall 12 percent service increase (10 percent of which was funded in the two year budget cycle).

The changes—some major, some minor—are distributed across an extensive system of over 75 bus, trolley, rail, cable car, and streetcar lines, together weaving their way across a 49 square-mile service area, and serving 700,000 trips a day. Behind these system-wide statistics are real people—our customers—and SFMTA is now taking additional steps to preserve and enhance the quality, consistency, and seamlessness of our customers' experience with its launch of the Muni Forward program, which is implementing projects informed by the TEP.

THE MUNI FORWARD PROGRAM

Route changes, service improvements, and comfort and safety enhancements that will improve the transit system, enable the agency to meet its service standards and goals, and reallocate limited resources where they are needed most is the purpose of the Muni Forward program.

As such, the program is actively working on multiple fronts to create a safer and more reliable experience both on and off transit. Muni Forward brings together in one place the long list of projects and planning efforts underway to achieve this vision.

Informed by the Transit Effectiveness Project, route changes and service improvements are being implemented to reallocate limited resources where they are needed most. Implementation and expansion of a Rapid Network of core routes serving nearly 70% of all riders is providing a whole new level of more frequent and reliable service. Updating our transit fleet and making important safety and accessibility improvements across the city, combined with the WalkFirst projects, is helping us to better accommodate the needs of families, seniors, and people with disabilities, and enhance comfort and safety for all our customers while aligning with the City's Vision Zero goals. Using technology more effectively by improving the integration of our transit system with traffic signals and bringing more real-time information to our customers is making our transit system smarter, safer, and more reliable.

To date, Muni Forward has implemented a number of transit service improvements and legislated miles of safety and transit priority capital projects including:

Increasing Service Four Times in 16 Months

- We added over 330,000 additional annualized service hours (or 10% more service) on Muni lines of all shapes and sizes, spanning the entire city
- We launched four brand new routes (E Embarcadero, 55 16th Street, 44 Owl and 48 Owl), rolled out all day Rapid service on the 28R 19th Ave, expanded service hours on our busy Express routes, and boosted frequency on all Muni Metro lines
- We also made several route tweaks to provide new and improved connections on several lines, including new connections to BART on the 35, 28R, 57, and 29

Advancing Key Infrastructure Upgrades to Improve Transit Reliability

- The SFMTA Board has legislated over 36 miles of transit-priority projects, which includes treatments like transit-only lanes, transit bulbs and stop consolidation to improve travel time and reliability
- Over 7 miles of transit-only lanes have been installed along congested transit corridors

SFMTA has prepared a detailed workbook that discusses implementation plans: <http://www.sfmta.com/projects-planning/projects/muni-forward-implementation-plan>.

SYSTEMWIDE TRANSIT PERFORMANCE INDICATORS

The National Transit Database (NTD) is the nation's primary source for information and statistics on

the transit systems operating in the United States. The SFMTA submits data to the NTD on an annual basis for the assessment of the agency and its service planning practices. The data submitted to the NTD also informs the apportionment of the Federal Transportation Agency's funding in urbanized areas.

From FY 2012 – FY 2015, unlinked passenger trips have shown a steady increase. Additionally, the revenue service hours have fluctuated, while the revenue service miles have gradually declined. Since MTC's adoption of the TSP targets, there have been changes to the methodology used to calculate these performance metrics. In FY 2014 at the request of the FTA, the SFMTA modified its methodology for calculating Revenue Hours by excluding undelivered service resulting from service interruptions as reported by the agency's Central Control log and Automatic Train Control System. This change also affected service

Table 11. Transit Performance Indicators – National Transit Database, FY 2012 – FY 2015.

METRIC	FY 2012	FY 2013	FY 2014 ¹	FY 2015
Revenue Service Hours	3,182,574	3,205,867	3,091,554	3,172,582
Revenue Service Miles	24,304,903	24,247,011	23,440,702	23,046,459
Unlinked Passenger Trips	222,125,944	222,991,006	227,977,367	229,442,770 ²

1. A new federally-mandated counting methodology used for FY 2014 and beyond has resulted in lower reported revenue service hours and miles.

2. Unaudited

mileage calculations.

In FY15, the SFMTA also significantly improved service delivery and started to implement a 10 percent service increase. This has decreased crowding on the Muni system and improved conditions for our riders. As San Francisco continues to grow, in both population and employment, the SFMTA will continue to monitor these metrics closely in order to maintain and improve service quality and reliability.

Additional Transit Performance Indicators

As discussed in the Goals, Objectives, and Standards section of this document, the SFMTA adopted several new metrics to track the efficiency and effectiveness of the transit system. These metrics include the Strategic Plan's Key Performance Indicators and other significant data points that would inform future decision-making purposes. The agency uses these metrics to assess its performance on a monthly basis giving SFMTA staff the opportunity to address any issues with transit service early and effectively.

The tables and charts on the following pages provide a snapshot of key metrics tracking Muni effectiveness and efficiency over the past several years.



Table 12. Additional Transit Performance Indicators, Targets and Results - unaudited average annual data, FY 2014 – FY 2016

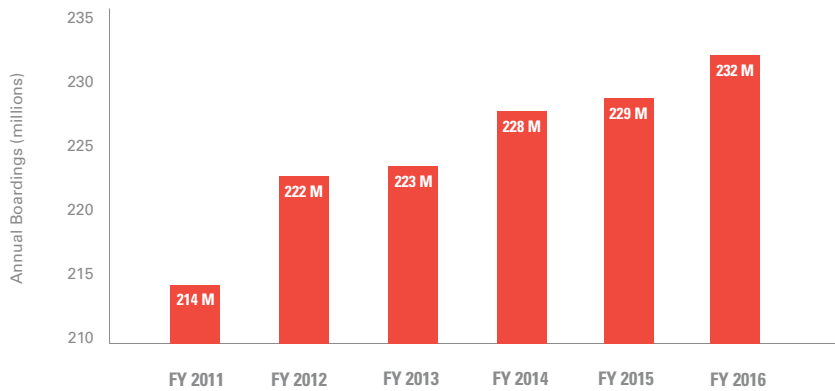
METRIC	FY 13-14 Target	FY 15-16 Target	FY 2014	FY 2015	FY 2016
Goal 1: Create a safer transportation experience for everyone					
SFPD-reported transit system related crimes (i.e. assaults, thefts, etc.)/100,000 miles ¹	3.4	3.1	9.4	8.2	6.4
Workplace injuries/200,000 hours (100 FTEs) ¹	14.6	13.1	12.0	11.0	12.8
Muni collisions/100,000 miles	4.5	4.1	5.9	6.4	6.4
Muni falls on board/100,000 miles	-	-	4.3	4.2	4.3
Goal 2: Make transit, walking, bicycling, taxi, ridesharing and carsharing the most attractive and preferred means of travel					
Customer rating: Overall customer satisfaction; Scale of 1 (low) to 5 (high) ¹	-	3.5	3.0	3.1	3.2
Percentage of transit trips with <2 minute bunching on Rapid Network ¹	2.9%	2.1%	4.0%	4.8%	5.3%
Percentage of transit trips with +5 minute gaps on Rapid Network ¹	14.6%	10.7%	18.6%	17.2%	16.9%
Percentage of on-time performance for non-Rapid Network routes	85.0%	85.0%	59.6%	57.4%	60.5%
Percentage of scheduled trips delivered	98.5%	98.5%	96.3%	97.7%	98.9%
Percentage of on-time departures from terminals	85.0%	85.0%	73.9%	72.2%	75.3%
Percentage of on-time performance	85.0%	85.0%	58.9%	57.0%	59.8%
Percentage of bus trips over capacity during AM peak (8:00 am - 8:59 am, inbound) at max load points	-	-	7.4%	4.7%	3.5%
Percentage of bus trips over capacity during PM peak (5:00 pm - 5:59 pm, outbound) at max load points	-	-	8.3%	5.6%	4.1%
Mean distance between failure (Bus)	-	-	4,632	5,650	5,436
Mean distance between failure (Light Rail Vehicle)	-	-	3,164	4,517	5,547
Mean distance between failure (Historic)	-	-	2,045	1,797	1,971
Mean distance between failure (Cable)	-	-	4,734	5,200	4,412 ²
Percentage of scheduled service hours delivered	-	-	96.2%	97.7%	99.0%
Ridership (rubber tire, average weekday)	-	-	504,205	512,817	519,477
Ridership (faregate entries, average weekday)	-	-	75,322	74,522	69,646
Percentage of days that elevators are in full operation	-	-	94.4%	93.3%	94.4%
Percentage of days that escalators are in full operation	-	-	93.8%	91.9%	86.5%
Mode Share (non-private auto trips) ¹	50%	50%	54%	52%	54%
Metered hours with no rate change in SFpark pilot areas ¹	-	-	66.2%	60.3%	64.7%
Goal 3: Improve the environment and quality of life in San Francisco					
SFMTA carbon footprint (metric tons CO2e) ¹	1,515,000	17,434	45,244	43,499	24,146
Estimated economic impact of Muni service delays (Monthly \$M) ¹	-	-	\$2.8	\$1.9	\$1.7
Projects delivered on-time by phase ¹	-	-	-	65.6%	81.3%
Projects delivered on-budget by phase	-	-	-	59.2%	97.8%
Average annual transit cost per revenue hour	\$202	\$192	\$237.37 (Adjusted) \$224.88 (Nominal)	\$233.99 (Adjusted) \$227.69 (Nominal)	\$229.37 ³
Passengers per revenue hour for buses	-	-	68	64	63 ³
Cost per unlinked trip	-	-	\$3.22 (Adjusted) \$3.05 (Nominal)	\$3.38 (Adjusted) \$3.29 (Nominal)	\$3.38 ³

METRIC	FY 13-14 Target	FY 15-16 Target	FY 2014	FY 2015	FY 2016
Farebox recovery ratio	-	-	30%	30%	26% ³
Unscheduled absence rate by employee group (Transit Operators)	-	-	9.4%	7.7%	8.6%
Structural operating budget deficit ¹	\$70M	\$35M	\$35M		
Structural capital budget deficit (S0GR) ¹	\$260M	\$130M	\$260M		\$232M
Goal 4: Create a collaborative environment to support delivery of outstanding service					
Employee rating: Do you feel you have the information you need to do your job? Scale of 1 (low) to 5 (high) ¹	-	4.0	3.5	3.5	3.5
Employee rating: Do you feel informed about agency issues, challenges and current events? Scale of 1 (low) to 5 (high) ¹	-	3.9	3.5	3.6	-
Employee rating: I feel as though the agency communicates current events, issues, challenges and accomplishments clearly; scale of 1 (high) to 5 (low) ¹	-	3.9	-	-	3.3
Employee rating: Overall employee satisfaction. Scale of 1 (low) to 5 (high) ¹	-	3.9	3.4	3.4	3.4
Employees with performance plans prepared by the start of fiscal year ¹	100%	100%	62.5%	31.3%	59.1%
Employees with annual appraisals based on their performance plans ¹	100%	100%	62.5%	54.2%	58.9%
Stakeholder rating: Satisfaction with SFMTA decision-making process and communications. Scale of 1 (low) to 5 (high) ¹	-	-	-	2.9	

¹ Key Performance Indicators
² Current through March 2016
³ FY16 figures are adjusted for inflation to reflect FY16 dollars and are based on preliminary unaudited financials.
⁴ Employee rating of "I have access to information about agency accomplishments, current events, issues and challenges" has been reworded to "I feel as though the agency communicates current events, issues, challenges and accomplishments clearly" in the 2016 employee satisfaction survey.

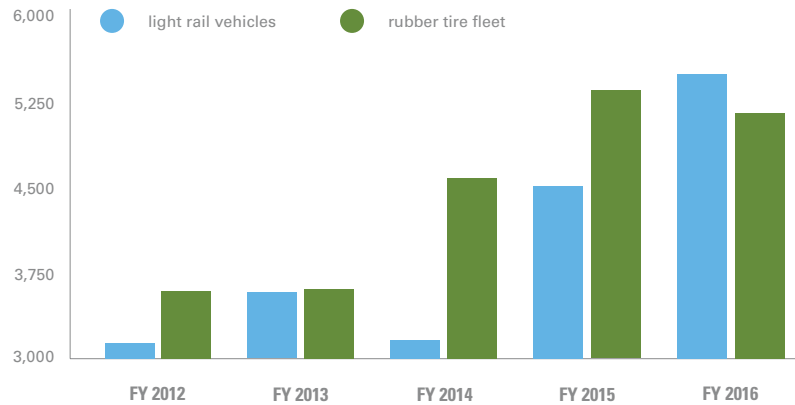
The SFMTA has developed interactive public dashboards detailing its performance on agency goals and objectives, found online at <http://sfmta.com/performance>. Additionally, reports on the SFMTA's Key Performance Indicators (including those metrics listed in Table 12) are issued monthly and discussed in depth at the SFMTA Board of Directors' Policy & Governance Committee. These reports are also available online: <http://sfmta.com/about-sfmta/reports/strategic-plan-progress-reports>.

Figure 8. Annual Boardings in Millions, FY 2011 to FY 2016



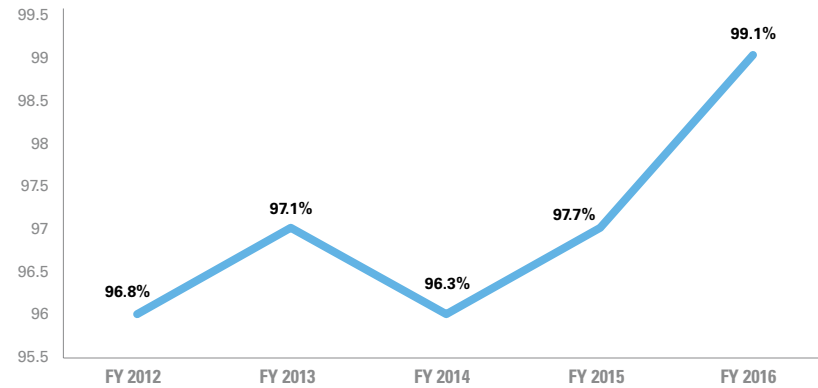
TRANSIT RIDERSHIP GROWING. Since FY 2011, transit ridership has been growing and recovering from a dip that started in FY2010. Throughout FY2015 and FY2016, the SFMTA implemented a series of service increases and route changes under the Muni Forward program. The agency will continue to monitor ridership to evaluate the effectiveness of its service as well as improve service quality and reliability to generate long-term ridership gains.

Figure 10. Mean distance between failures, FY 2012 - 2016



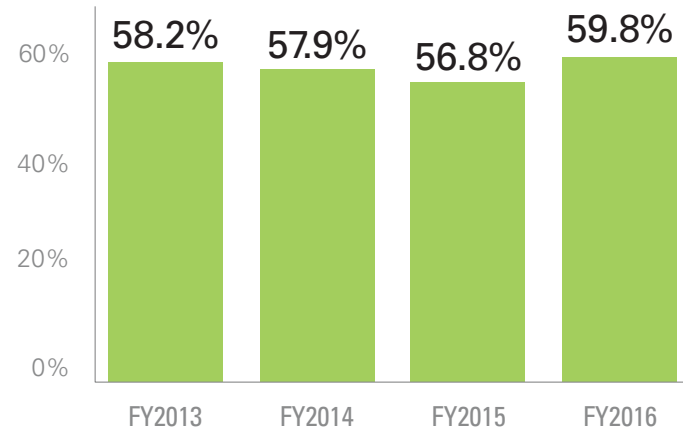
MEAN DISTANCE BETWEEN VEHICLE FAILURES IS IMPROVING. Vehicle maintenance and reliability has improved significantly since FY 2012. For light rail vehicles, the mean distance between failures has lengthened by about 75 percent even though the existing Breda vehicles are four years older. For the rubber tire fleet (both motor and trolley coaches), the mean distance between failures has lengthened by about 67 percent due to increased maintenance and the beginning of the replacement of older transit vehicles.

Figure 9. Percent of scheduled trips delivered, FY 2012 - FY 2016



SCHEDULED SERVICE DELIVERED HAS IMPROVED AND REMAINS HIGH. Between FY 2012 and FY 2016, scheduled service delivery improved from around 97 percent to 99 percent. By delivering over 99 percent of scheduled service, SFMTA is currently exceeding its target as it has expanded service and hired new operators. Fewer missed runs have improved service reliability for customers.

Figure 11. Percent On-Time Performance, FY 2013 - FY 2016



WORKING TO IMPROVE ON-TIME PERFORMANCE. Between 2012 and 2015, San Francisco's population increased by over 35,000 (4.5 percent) while employment mushroomed by over 86,000 (14.8 percent). Even with this rapid growth and stress on the transportation network, the SFMTA has maintained an on-time performance rate of approximately 60 percent. The SFMTA is working to improve on-time performance by reassessing schedules and supervision deployment, implementing red lanes reserved for transit and taxis and implementing a new radio communications system to improve real-time responsiveness to traffic and service delays.

Table 13. FY 2016 Muni Fixed Route Weekday Boardings by Line (rounded to nearest 100)

	MUNI ROUTE	VEHICLE TYPE	WEEKDAY BOARDINGS	
Muni Metro & Rapid Bus	J Church	Light Rail Vehicle	16,200	
	KT Ingleside/Third Street	Light Rail Vehicle	42,500	
	L Taraval	Light Rail Vehicle	33,000	
	M Ocean View	Light Rail Vehicle	30,600	
	N Judah	Light Rail Vehicle	49,200	
	5R Fulton Rapid	Trolley Coach	11,800	
	7R Haight/Noriega Rapid	Motor Coach	2,100	
	9R San Bruno Rapid	Motor Coach	10,400	
	14R Mission Rapid	Motor Coach	18,200	
	28R 19th Avenue Rapid	Motor Coach	2,600	
	38R Geary Rapid	Motor Coach	29,300	
	Frequent	1 California	Trolley Coach	23,800
		7 Haight/Noriega	Motor Coach	9,800
8 Bayshore		Motor Coach	23,300	
9 San Bruno		Motor Coach	10,500	
14 Mission		Trolley Coach	24,300	
22 Fillmore		Trolley Coach	16,200	
24 Divisadero		Trolley Coach	11,300	
28 19th Avenue		Motor Coach	12,400	
30 Stockton		Trolley Coach	23,000	
38 Geary		Motor Coach	21,800	
47 Van Ness		Motor Coach	11,000	
49 Van Ness/Mission	Trolley Coach	22,400		
Grid	2 Clement	Motor Coach	4,800	
	3 Jackson	Trolley Coach	3,100	
	5 Fulton	Motor Coach	9,700	
	6 Haight/Parnassus	Trolley Coach	7,800	
	10 Townsend	Motor Coach	6,300	
	12 Folsom/Pacific	Motor Coach	5,400	
	18 46th Avenue	Motor Coach	3,600	
	19 Polk	Motor Coach	7,400	
	21 Hayes	Trolley Coach	7,200	
	23 Monterey	Motor Coach	4,100	
	27 Bryant	Motor Coach	6,600	
	29 Sunset	Motor Coach	18,100	
	31 Balboa	Trolley Coach	9,200	
	33 Ashbury/18th	Trolley Coach	6,100	
	43 Masonic	Motor Coach	13,100	
	44 O'Shaughnessy	Motor Coach	16,400	
45 Union/Stockton	Trolley Coach	10,800		
48 Quintara/24th Street	Motor Coach	7,900		
54 Felton	Motor Coach	7,400		

	MUNI ROUTE	VEHICLE TYPE	WEEKDAY BOARDINGS	
Connector	25 Treasure Island	Motor Coach	3,100	
	35 Eureka	Motor Coach	700	
	36 Teresita	Motor Coach	1,500	
	37 Corbett	Motor Coach	2,100	
	39 Coit	Motor Coach	500	
	52 Excelsior	Motor Coach	2,000	
	55 16th Street	Motor Coach	1,800	
	56 Rutland	Motor Coach	400	
	57 Park Merced	Motor Coach	1,500	
	66 Quintara	Motor Coach	800	
	67 Bernal Heights	Motor Coach	1,500	
	Historic	California Cable Car	Cable Car	4,500
		Powell/Mason Cable Car	Cable Car	5,100
		Powell/Hyde Cable Car	Cable Car	6,600
F Market & Wharves		Historic Streetcar	19,800	
Specialized	NX Judah Express	Motor Coach	1,200	
	1AX California A Express	Motor Coach	1,200	
	1BX California B Express	Motor Coach	1,600	
	7X Noriega Express	Motor Coach	1,400	
	8AX Bayshore A Express	Motor Coach	5,700	
	8BX Bayshore B Express	Motor Coach	6,200	
	14X Mission Express	Motor Coach	4,000	
	30X Marina Express	Motor Coach	2,200	
	31AX Balboa A Express	Motor Coach	1,000	
	31BX Balboa B Express	Motor Coach	900	
	38AX Geary A Express	Motor Coach	900	
	38BX Geary B Express	Motor Coach	1,000	
	41 Union	Trolley Coach	3,500	
	81X Caltrain Express	Motor Coach	100	
	82X Levi Plaza Express	Motor Coach	600	
	83X Mid-Market Express	Motor Coach	300	
88 BART Shuttle	Motor Coach	400		
Owl	90 San Bruno Owl	Motor Coach	300	
	91 Owl	Motor Coach	800	

MUNI TRANSIT SERVICE STRUCTURE

The SFMTA operates Muni transit service based on a set of design standards developed by SFMTA staff in response to development patterns, customer needs, system performance, and mandates listed in Proposition E. These standards define policies for: service coverage, vehicle assignment, on-time performance, service span, headways for each route type, transit shelter placement, stop spacing, and planned capacity and passenger loads.

Coverage: All residential neighborhoods in San Francisco should be within a quarter of a mile of a Muni bus stop or rail line stop.

Vehicle Assignment: The SFMTA assigns vehicles in a manner that prevents discrimination to minority and low-income communities and considers technical criteria including peak load factors, route type, physical route characteristics such as street widths and grades, required headways, vehicle availability and transit operator availability.

On-Time Performance: On-time performance (OTP) is a service standard mandated by the San Francisco voters in Proposition E when the SFMTA was formed. It measures Muni service delivery according to the schedule, rather than informing the fleet planning and service routes.

Table 14. On-Time Performance Definition

ROUTE TYPE	DEFINITION	OTP STANDARD
Rapid & Local Frequent	% of trips with a service gap of five minutes above the scheduled headway	Less than 14% of trips with a service gap
Grid	% of time points served within one minute early to four minutes late of the scheduled time	85% on-time (schedule adherence)
Connector		
Specialized		
Owl		

Service Span: Muni service is planned to operate service for the minimum number of hours by route type as listed below.

Table 15. Muni Service Plan Standard, by Route Type

ROUTE TYPE	SERVICE SPAN STANDARD
Rapid & Local Frequent	18 hours
Grid	18 hours
Connector	Based on demand
Specialized	Based on demand
Owl	Late night service, generally between 1:00 am – 5:00 am (minimum 30 minute headways)

Policy Headways: The following are the minimum weekday headways for transit service established by Muni route type. However, frequencies of individual routes may be higher based on demand.

Table 16. Muni Policy Headways, by Route Type

ROUTE TYPE	DAY	EVENING	LATE NIGHT
Weekday			
Rapid & Local Frequent	10	15	20*
Grid	20	20	30
Connector	30	30	--
Specialized	based on demand		
Weekend			
Rapid	12	15	20
Local Frequent	20	20	30
Connector	30	30	--

* Rapid routes run as a local service during late night transit service.

Transit Shelter Installation: Transit shelters are installed at transit stops (both bus and rail) with a minimum of 125 daily boardings within environmental constraints. Additional shelters may be installed as needed.

Stop Spacing: The following guidelines were developed so that they can be meaningfully applied to the diverse street grids and grades in San Francisco. The placement of transit stops will continue to be influenced by many factors, including the location of traffic controls to help people walking cross major streets, key transit transfer points, land uses, topography and major trip generators.

Table 17. Muni Stop Spacing Standards, by Vehicle Type

VEHICLE TYPE	STOP SPACING STANDARD
Bus	Approximately 800 to 1,360 feet on grades less than or equal to 10%; stops may be as close as 500 feet on grades over 10% Rapid and Specialized stops to be spaced on a case-by-case basis
Surface Rail*	Approximately 900 to 1,500 feet

* Rail technology limits operation to grades under 10 percent. Not applicable to Cable Car.

Passenger Loads - Rail: Muni rail service should be planned to operate service such that the peak hour, peak direction load factor does not exceed 85 percent of the combined seating and standing capacity (established by vehicle type).

Table 18. Muni Rail Passenger Load Standards, by Vehicle Type

VEHICLE TYPE	PLANNING CAPACITY	85% LOAD STANDARD
Light Rail Vehicle	119	101
Streetcar	60	51
Cable Car	63	54

* Crush load is approximately 125% of planning capacity

Passenger Loads - Rubber Tire: The SFMTA has recently updated its rubber tire passenger loads to reflect the shift to new low-floor vehicles and to better align with industry standards, which typically restrict standees to 1.0 to 1.6 times the seated loads. Two distinct guidelines were developed for rubber tire passenger loads. The first is average maximum load, which is used to schedule service and evaluates how many people pass through the most crowded point of the route over a 30 or 60 minute interval divided by the number of scheduled buses. For this analysis, SFMTA assumed 4.5 square feet per standee to determine the total seated and standing capacity of each vehicle. The second metric evaluates crowding per bus and assumes 3.0 square feet per standee, which the Transit Capacity Manual considers to represent when most customers would consider a bus to be full.

Table 19. Average Maximum and Crowding Loads for RubberTire fleet

VEHICLE TYPE	32FT BUS	40FT BUS	60FT BUS
Maximum load (total seated and standing passengers)	33	44	69
% of standees to seats	140%	145%	155%
Crowding per bus (total seated and standing passengers)	38	51	81
% of standees to seats	160%	165%	185%

MUNI SERVICE EQUITY POLICY

SFMTA is committed to continually improving Muni service quality across San Francisco and ensuring that service performs equally across all neighborhoods. Working with social justice advocates and the disability community, the SFMTA adopted an equity policy in FY 2014 to improve Muni service in the areas of San Francisco most in need. This policy calls for the SFMTA to create an Equity Strategy every two years to inform the SFMTA's biennial budget approval process.

In April 2016, the SFMTA Board approved the first Equity Strategy, which assesses Muni service performance in select low income and minority neighborhoods through data analysis, identifies major Muni transit-related challenges impacting selected neighborhoods through community stakeholder outreach, and develops strategies to address the major challenges. The strategy's recommendations are included in the SFMTA's FY 2017 – FY 2018 budget.

Various strategies were implemented, with more planned through 2018. Staff reported back to the SFMTA Board in the fall of 2016 regarding the progress of the Equity Strategy. Staff is in the process of meeting with key neighborhood leaders, and the first round of public outreach will begin in the spring of 2017. Community feedback and performance data will inform draft strategies for the FY2019-2020 cycle. Staff will bring these draft strategies back to the community for further input in the fall of 2017.



EQUIPMENT & FACILITIES

In 2013, the SFMTA Board of Directors accepted the findings and recommendations of the SFMTA Real Estate and Facilities Vision for the 21st Century Report (Vision Report).

In 2015, based on the recommendations in the Vision Report, the SFMTA formed a Facilities Task Force, which generated recommendations to address the issues identified in the Vision Report. This included the development of a Facilities Capital Program, a specific program of projects to address immediate transit fleet growth needs, and a Facilities Condition Assessment, to identify the state of good repair needs to the SFMTA's existing facilities campus.

In 2017, the SFMTA drafted a Facilities Framework, a flexible and dynamic tool that provides alternatives to address SFMTA's facility needs through 2040. The Facilities Framework provides the SFMTA various scenarios to pursue based on fleet storage and transit operational and maintenance needs, and considering market conditions for potential joint development after transit priorities are accommodated on the sites.

MTC COMMUNITY-BASED TRANSPORTATION PLANNING PROGRAM

Involvement in the Metropolitan Transportation Commission's (MTC's) Community-based Transportation Planning Program (CBTP) for the City and County of San Francisco has traditionally been led by the San Francisco County Transportation Authority (SFCTA). With funding from Proposition K, SFCTA planned and completed CBTPs in the following communities: Mission-Geneva (April 2007), Bayview Hunters Point (June 2010), Western South of Market (March 2012), and Broadway-Chinatown (October 2014).

In late 2014, the SFMTA began leading the CBTP effort in the Western Addition neighborhood. The existing conditions study revealed that the Western Addition continues to be defined as a Community of Concern (COC) with a high concentration of low-income housing and large population of minority residents struggling with city's high cost of living. The neighborhood is also challenged with high vehicle speeds, cut through traffic, and has been identified

by the city's Vision Zero policy and WalkFirst program as a high-injury area. With this knowledge, SFMTA initiated the planning process with a focus on neighborhood-level transportation safety improvements with an emphasis on enhancing the community's walking, biking, and transit experience. After initial outreach, the project team refined the project to not only focus on transportation safety, but also crime prevention through environmental design (CPTED).

During the preliminary planning and throughout the project, the SFMTA has worked closely with District 5 Supervisor Breed, the San Francisco County Transportation Authority (SFCTA), the project's Technical Advisory Committee (TAC) and contracted community based organization (CBO) Mo'MAGIC. In August 2015, the three-phased community outreach process began and was completed in May 2016, hosting a total of 11 events. Based on community feedback, the project team developed and presented street design options, where the community assessed designs using a scorecard exercise. After analyzing the community's feedback, the project team refined conceptual designs and produced final recommendations. Near term recommendations consist of low-cost, quick and effective treatment, like continental crosswalks and daylighting, to address immediate pedestrian safety concerns at 41 intersections. Mid-term improvements include corridor treatments on Golden Gate Avenue and Turk Street as well as signal enhancements in the form of pedestrian countdown signals and rectangular rapid flashing beacons. Long-term improvements include Community Connections projects, which are capital projects to enhance safety and access to community recreational assets like Buchanan Street Mall. Long-term improvements also include a pedestrian lighting network called the Walkable Western Addition, which



Outreach for Western Addition Community-Based Transportation Plan

addresses resident's safety and security concerns when traveling at night. Funding is programmed for the near- and mid-term recommendations, while the long-term recommendations are currently 25% funded. The SFMTA is working with the SFCTA to identify additional funding sources.

PARATRANSIT SERVICES

San Francisco Paratransit is a van and taxi program for people unable to independently use or access public transit because of a disability or disabling health condition. Since 1990, the Americans with Disabilities Act (ADA) has required all public transit agencies to provide paratransit services to eligible disabled people. Muni has provided paratransit services since 1978.

SFMTA owns 122 vehicles in the paratransit fleet and contracts with a third party contractor for paratransit brokerage services, including management of the overall SF Paratransit program, and a portion of the demand-responsive transportation services. In its role as the paratransit broker, the third party contractor also subcontracts with van and taxi companies for the remaining demand-responsive transportation services.



ParatransitTaxi Services

The SFMTA provides paratransit service within San Francisco, to Treasure Island, to the northernmost part of Daly City in San Mateo County, and to Marin Headlands on weekends mirroring the Muni 76X-Marín Headlands line. In FY 2017 and FY 2018, the SFMTA will procure approximately 63 Paratransit vehicles to replace existing vehicles (approximately 47 in FY 2017 and approximately 16 in FY 2018). More information on the vehicle procurement can be found in the description of the SFMTA transit fleet in the Capital Financial Plan section of this document.

San Francisco Paratransit provides three types of service:

- *SF Access Van Service* - SF Access provides pre-scheduled, door-to-door ADA van services. SF Access is a shared-ride service. SF Access customers must make a reservation from one to seven days before the day of the trip, and service is provided within one hour of the requested pick-up time.
- *Taxi Services* - Paratransit taxi is the same curb-to-curb taxi service that is available to the general public. This is not an ADA mandated service, but many customers find that it better meets their transportation needs.
- *Group Van Service* - Group Van is a pre-scheduled van service providing door-to-door transportation to groups of ADA-eligible customers attending specific agency programs such as Adult Day Health Care, senior centers, or work sites.

In addition, SFMTA provides specialized paratransit service through the "Shop-a-Round" program which uses vans and taxis to transport seniors and people with disabilities to and from the grocery stores. The "Shop-a-Round" Shuttle is a van service that

takes groups of up to seven passengers to and from preselected stores on a weekly basis. Taxi-based shopping services provide passengers with a designated allotment of taxi debit card value for use in going to and from the grocery store.

SFMTA expanded the network of paratransit services to include Van Gogh shuttle service to social and cultural events for seniors and people with disabilities in an effort to reduce social isolation.

SFMTA has a long history of community involvement with paratransit services. The Paratransit Coordinating Council (PCC) is an advisory body for customers, service providers, social service agency representatives, and others to provide input on the paratransit program. The Executive Committee of the PCC meets regularly to discuss and provide input to the SFMTA on paratransit services. Also, the Multimodal Accessibility Advisory Committee (MAAC) is a group of seniors and customers with disabilities who regularly use SFMTA services and provide input on accessibility-related projects. MAAC is dedicated to maintaining, improving, and expanding the accessibility of San Francisco's streets and public transportation system.

More information on paratransit services can be found on the SF Paratransit website: <http://www.sfparatransit.com/>.

TITLE VI ANALYSIS & REPORT

As a recipient of federal funds, the SFMTA is required to submit an updated Title VI Program to the Federal Transit Administration's (FTA) Regional Civil Rights Officer every three years. The SFMTA's 2016 Title VI Program was submitted to FTA by the December 1, 2016 deadline. The program provided an update to the SFMTA's 2013 Title VI Program and details the SFMTA's compliance with both the "General Requirements" (Section 1) and "Program-Specific Requirements" (Section 2), as required by FTA C 4702.1B.

In addition to the 2016 Update, SFMTA provided results of the monitoring program which compares system-wide transit service standards to the performance of minority and non-minority routes. The update and monitoring report were approved by the SFMTA Board of Directors in November 2016. The next Title VI Program Update is due to the FTA on December 1, 2019.

FTA TRIENNIAL REVIEW

The most recent FTA Triennial Review of the SFMTA was conducted in May 2016. Deficiencies were

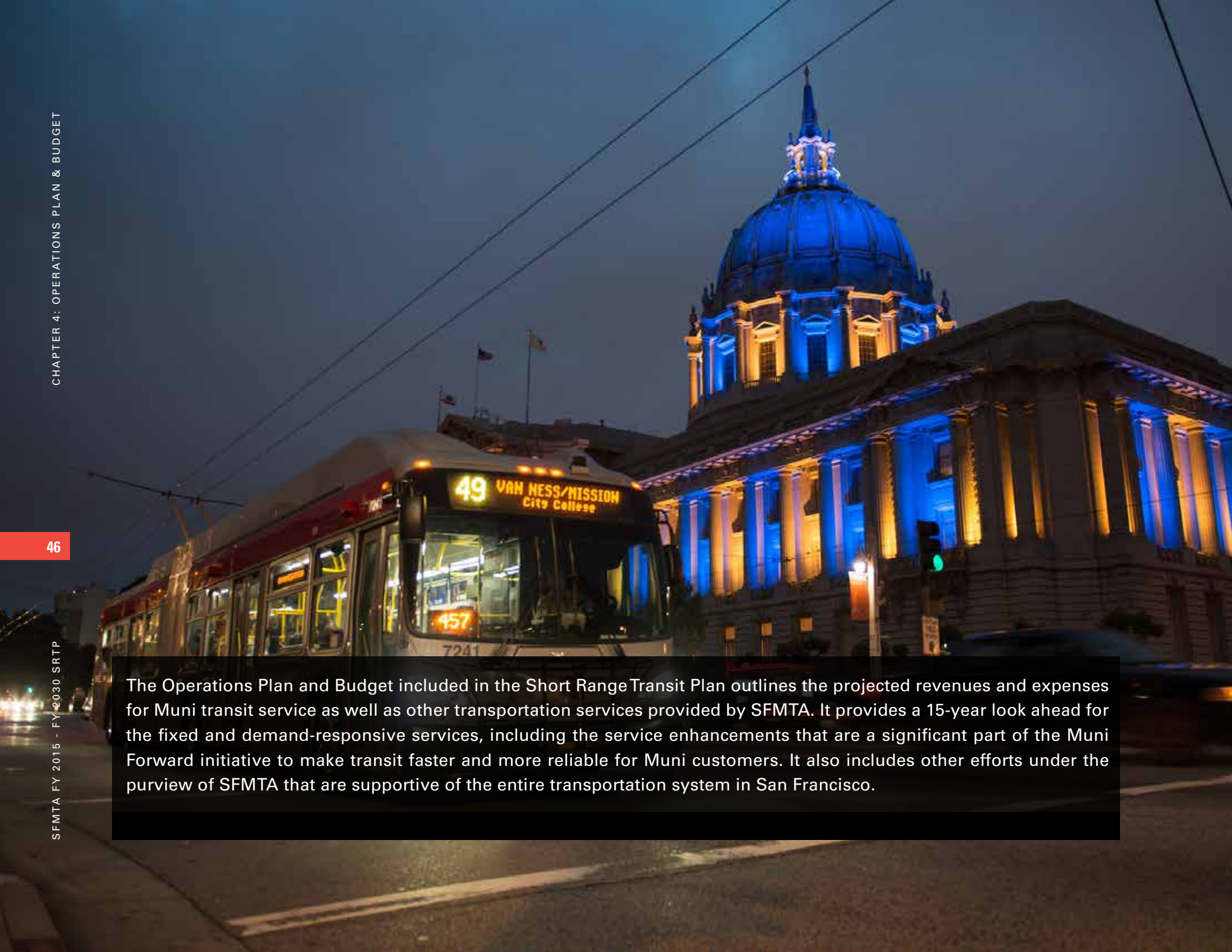
identified in the following review areas: Financial Management and Capacity; Technical Capacity; Maintenance; ADA; Title VI; Procurement; Satisfactory Continuing Control; Public Comment on Fare Increases and Major Service Reductions; Drug-Free Workplace / Drug and Alcohol Program; and Equal Employment Opportunity (EEO). A schedule for corrective actions was created in order to address these deficiencies and included in the final report, issued in July 2016. As of March 2017, two findings are pending and the remaining items are closed (copies of the Review are available upon request).

Table 20. 2016 FTA Triennial Review, Summary of Findings and Corrective Action Status

FINDING	DEFICIENCY	CORRECTIVE ACTION	STATUS
Review Area: Financial Management and Capacity			
D.783	No financial policies and procedures	The grantee must submit to the FTA regional office financial policies and procedures that govern grant implementation and are understood throughout the organization. The financial management procedures must incorporate a process for performing variance analysis of operating financials, and indirect rate management. The grantee must submit to the FTA regional office documentation that demonstrates that the procedures have been implemented.	Finding closed.
D.276	Ineligible expenses charged to grant	The grantee must document and work with the FTA regional office to reimburse FTA for incorrect indirect rate amounts charged to grants. In addition, SFMTA will not be permitted to charge indirect costs beginning July 1, 2016 until the overbilling amount has been reconciled and refunded to FTA and the cost allocation plans for fiscal years 2016 and 2017 have been submitted and approved by FTA.	Pending.
Review Area: Technical Capacity			
D.122	Incorrect FFR reporting	The grantee must submit corrected FFRs in TrAMS for the next reporting period that would reflect the appropriately approved indirect rate expenditures for all open grants, and procedures for validating FFR data, including indirect rates, to the FTA regional office. SFMTA will not report indirect rates after July 1, 2016 unless the FY 2016 and 2017 Cost Allocation Plans are approved by FTA beforehand.	Finding closed.
D.208	Inadequate oversight of subrecipient/ third-party contractor/ lessees	The grantee must submit implemented procedures and a staffing plan to the FTA regional office to monitor its paratransit contractor for meeting FTA requirements.	Finding closed.
D.79	Inactive grants/untimely closeouts	The grantee must submit to the FTA regional office more effective procedures and a staffing plan for grant administration to enable it to close grants more timely. The grantee must submit an accurate closeout schedule with specific information related to key causes of delay and corrective actions employed.	Finding closed.
Review Area: Maintenance			
D.149	Late facility/ equipment preventative maintenance	The grantee must submit to the FTA regional office a monthly report signed by the chief executive officer or other senior management designee on its preventive maintenance results until the data demonstrates it has conducted at least 80 percent of its facility preventive maintenance on time for three consecutive months.	Finding closed.

Table 20. (Continued) 2016 FTATriennial Review, Summary of Findings and Corrective Action Status

FINDING	DEFICIENCY	CORRECTIVE ACTION	STATUS
Review Area: Americans with Disabilities Act (ADA)			
D.73	ADA complementary paratransit service deficiencies	The grantee must update and submit to the FTA RCRO evidence that information regarding the no-show policy included on its website and all public facing documents is compliant with ADA requirements.	Pending.
D.109	Limits or capacity constraints on ADA complementary paratransit service	The grantee must submit to the FTA RCRO procedures for monitoring its ADA complementary paratransit service reservation and scheduling system for capacity constraints. The grantee must update its definition of missed trips and accurately track call abandonment data, and submit a description of the process to be used to review the ADA paratransit contractor for capacity constraints.	Finding closed.
Review Area: Title VI			
D.11	Lacking assessment or provisions for LEP persons	The grantee must submit to the RCRO evidence of operator training for contractors in the LAP included in the Title VI plan.	Finding closed.
Review Area: Procurement			
D.271	Lacking required cost/price analysis	The grantee must provide the FTA regional office documentation that it has updated its procurement process to include performing cost and price analysis for every procurement action, including contract modifications. For the next change order, the grantee must submit to FTA documentation that the required analysis was implemented.	Finding closed.
D.340	Lacking independent cost estimate	The grantee must provide the FTA regional office documentation that it has updated its procurement process to include development of independent cost estimates prior to receipt of bids or proposals. For the next procurement, the grantee must submit to the FTA regional office documentation that the required process was implemented.	Finding closed.
Review Area: Satisfactory Continuing Control			
D.161	Excessive fixed route bus spare ratio	The grantee must submit to the FTA regional office a plan for reducing the spare ratio to 20 percent. The plan should include a spreadsheet listing, for each bus type, the number of buses, and, for each year until the spare ratio reaches 20 percent, the number of buses to be disposed of, the number of buses to be added, the projected peak requirement, and the projected spare ratio. The plan should include detailed justifications for years in which spare ratios exceed 20 percent. The grantee must submit an updated fleet management plan. If the grantee submits a plan for reducing its spare ratio that cannot be completed within 90 days, the grantee must report progress in TrAMS Milestone Progress Reports.	Finding closed.
Review Area: Public Comment on Fare Increases and Major Service Reductions			
D.27	Deficiencies in public comment process as defined	The grantee must submit to the FTA regional office a written policy for soliciting and considering public comments prior to a fare increase or major service reduction that addresses how comments will be considered.	Finding closed.
Review Area: Drug-Free Workplace/ Drug and Alcohol Program			
D.28	Drug and alcohol policy lacking required elements	The grantee must submit to the FTA regional office an amended policy addressing good faith efforts documentation for new hire previous employer checks.	Finding closed.
Review Area: Equal Employment Opportunity (EEO)			
D.204	EEO utilization analysis/goal deficiencies	The grantee must provide justification to the FTA RCRO where prior goals were not met over the last three years, by employee classification.	Finding closed.
D.225	EEO monitoring/ reporting system deficiencies	The grantee must develop and submit to the FTA RCRO a detailed monitoring and reporting system.	Finding closed.



The Operations Plan and Budget included in the Short Range Transit Plan outlines the projected revenues and expenses for Muni transit service as well as other transportation services provided by SFMTA. It provides a 15-year look ahead for the fixed and demand-responsive services, including the service enhancements that are a significant part of the Muni Forward initiative to make transit faster and more reliable for Muni customers. It also includes other efforts under the purview of SFMTA that are supportive of the entire transportation system in San Francisco.

OPERATIONS PLAN & BUDGET

OPERATIONS PLAN

The SFMTA is responsible for all surface transportation in the city, and the operations plan and supporting budget includes delivery across all modes – transit, walking, bicycling, ridesharing, and automobile movement. Through the implementation of Muni Forward, Vision Zero, and the Strategic Plan, the SFMTA has started several agencywide initiatives to improve the safety, reliability, and effectiveness of the city’s multimodal transportation system.

MUNI SERVICE OPERATIONS FRAMEWORK

Under Muni Forward, the SFMTA will continue to deliver the fixed route service as discussed in previous sections of the document. This service framework enables the SFMTA to focus investment where demand is high, discontinue low-ridership segments in order to add connections between neighborhoods and to regional transit, and expand capacity on heavy-ridership routes.

- **Muni Metro & Rapid Bus:** These heavily used bus and rail lines form the backbone of the Muni system. With vehicles arriving frequently and transit priority enhancements along the routes, the Rapid network delivers speed and reliability whether customers are heading across town, or simply traveling a few blocks.
- **Frequent:** These routes combined with Muni Metro and Rapid Bus create the Rapid network. They provide high-quality, frequent service but with more stops along the route.

- **Grid:** These citywide routes combine with the Rapid network to form an expansive core system that lets customers get to their destinations with no more than a short walk, or a seamless transfer. Depending on demand, they typically operate less frequently than the Rapid network routes.
- **Connector:** These bus routes predominantly circulate through San Francisco’s hillside residential neighborhoods, filling in gaps in coverage and connecting customers to major transit hubs.
- **Historic:** Historic Streetcars and Cable Cars.
- **Specialized:** These routes augment existing service during specific times of day to serve a specific need, or serve travel demand related to special events. They include AM and PM commute service, owl service, weekend-only service, and special event trips to serve sporting events, large festivals and other San Francisco activities.

This Service Policy Framework serves multiple purposes. First, it provides a clear understanding of the different roles that transit routes play in the city and sets guidance for the transit planning process. Second, it guides future transit evaluation and investments.

For more information and recent updates on the implementation of Muni Forward, please check <http://muniforward.com/>.

The SFMTA evaluates the performance of its routes on a routine basis. Rather than comparing routes across the system, routes will be compared to similar routes in their service category. For example, if a route is performing better than its category average, it would be evaluated for improvements – such as potential service increases – in close coordination with customers and other key stakeholders.

MUNI FORWARD SERVICE IMPROVEMENTS

The Muni Forward operations plan is the path forward for the agency to achieve its objectives to improve customer service, communications, and transit performance on its fixed route service. The extensive planning, environmental assessment, and community engagement involved in the development of these projects and operations plan will ensure that the Muni Forward initiatives stay within the city’s, region’s, and state’s legal and regulatory requirements and the agency’s financial constraints.

After the SFMTA’s determination of fiscal health in January 2015, the Board of Directors approved a three percent increase in transit service in FY 2015

and a seven percent increase in FY 2016. To date, the approved 10 percent service increase has been implemented resulting in major improvements to transit in San Francisco by:

- Increasing frequency of transit service along heavily used corridors.
- Creating new routes.
- Changing existing route alignments.
- Eliminating underutilized routes or route segments.
- Introducing larger buses on crowded routes.
- Changing the mix of Rapid, Frequent, Grid, Connector, and Specialized services.
- Expanding Rapid services.

Though many of these system updates were delivered without physical infrastructure changes, some of the service changes require capital investments, such fleet facility reconstruction and expansion. A brief description of these capital investments can be found in the Capital Financial Plan section of this document.

In addition to the Muni Forward portfolio of projects and service upgrades, the SFMTA will implement a three percent increase in transit service when the Central Subway revenue service starts. As noted below, T Third service in the Central Subway is scheduled to start in FY 2020.

HISTORIC STREETCAR TRANSIT SERVICE

The historic streetcar transit routes were analyzed as part of the Transit Effectiveness Project and enhancements to these lines will be implemented in conjunction with the Muni Forward Service Improvements.

E Embarcadero: A new historic streetcar line has been established to connect the northeast waterfront to AT&T Park and the Caltrain Station. Launched in the summer of 2015, the E Embarcadero now provides service between 10:00 am and 7:00 pm every day of the week.

For an in-depth review of the implementation tools, proposals for service and route changes and capital improvements, SFMTA has prepared a detailed workbook that discusses implementation plans: <http://www.sfmta.com/projects-planning/projects/muni-forward-implementation-plan>

Table 21. Planned Levels of Service Systemwide, FY 2016 – FY 2030

All Transit Modes	FY 2015 (actual)	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020*	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Revenue Service Hours	3,172,582	3,394,663	3,394,663	3,394,663	3,394,663	3,496,503	3,496,503	3,496,503	3,496,503	3,496,503	3,496,503	3,496,503	3,496,503	3,496,503	3,496,503	3,496,503
Revenue Service Miles	23,046,459	24,659,711	24,659,711	24,659,711	24,659,711	25,399,502	25,399,502	25,399,502	25,399,502	25,399,502	25,399,502	25,399,502	25,399,502	25,399,502	25,399,502	25,399,502



*Scheduled 3 percent service increase for Central Subway service in FY2020

F Market & Wharves: No route changes are currently proposed for this line. Frequencies would be reduced in the morning due to the additional capacity provided by the new E Embarcadero Line, though mid-day frequency would increase from 6 to 5 minutes.

PARATRANSIT & DEMAND RESPONSIVE SERVICES

The SFMTA Accessible Services Program ensures that the appropriate, accessible, Americans with Disabilities Act (ADA)-compliant transportation services will continue to be available to seniors and people with disabilities in San Francisco. As described in detail in Chapter 3 of this document, customers who cannot access the fixed route system due to their disability have several options available to them: a paratransit van and taxi program that provides door-to-door services; the Shop-a-Round service to local grocery stores and shopping districts; and the Van Gogh Service to cultural and recreational activities.

AGENCYWIDE OPERATIONS

In addition to operating and maintaining the nation's eighth largest public transit system, the SFMTA manages parking and traffic, facilitates bicycling and walking, regulates taxis, and plans and implements community-based projects to improve the transportation network. The Operating Financial Plan supports these operations by funding the predevelopment, planning, and review of capital projects as well as the administration, financial services, regulatory, and communications operations for the agency.

OPERATIONS BUDGET

The San Francisco City Charter requires the SFMTA to submit a balanced, agencywide two-year budget. The SFMTA Operating Budget is based on revenue projections from the following sources: passenger fares (both fixed route & paratransit); fines, fees, and permits; revenues from parking meters and garages; operating grants; and the transfer from the City and County of San Francisco General Fund.

As part of the development of the two-year budget, the public is engaged to provide input throughout the budget process. Outreach includes Town Hall meetings, public hearings before the Board, presentations to the Board of Supervisors, and collection of public comment via other means such as mail and email. The Citizens' Advisory Council also holds several meetings to consider the budget.

The City Charter requires that SFMTA submit a two-

Table 22. Summary of Revenues for FY 2016 Amended Budget and FY 2017 and FY 2018 Adopted Budget

BUDGET CATEGORY (in millions)	FY 2016 AMENDED BUDGET	FY 2017 ADOPTED BUDGET	FY 2018 ADOPTED BUDGET
Transit Fares	\$201.0	\$205.9	\$207.9
Operating Grants	\$132.0	\$145.7	\$148.5
Parking and Traffic Fees and Fines	\$292.1	\$324.5	\$337.9
Other (Advertising, Interest, Taxi, and Service Fees)	\$42.8	\$48.1	\$71.0
General Fund Transfer (Based on City Charter)	\$272.0	\$291.5	\$299.3
Use of Available Fund Balance	\$20.0	\$45.0	\$47.0
Subtotal Operating Budget	\$959.9	\$1,060.7	\$1,111.6
Capital Projects Funded by Operating Revenues	\$58.0	\$121.2	\$142.5
TOTAL	\$1,017.9	\$1,181.9	\$1,254.1

Table 23. Summary of Expenditures for FY 2016 Amended Budget and FY 2017 and FY 2018 Adopted Budget

BUDGET CATEGORY (in millions)	FY 2016 AMENDED BUDGET	FY 2017 ADOPTED BUDGET	FY 2018 ADOPTED BUDGET
Salaries & Benefits	\$599.1	\$644.4	\$676.2
Contracts & Other Services	\$114.6	\$150.5	\$154.0
Materials & Supplies	\$80.3	\$76.5	\$78.4
Equipment & Maintenance	\$14.5	\$16.1	\$27.5
Rent & Building	\$6.8	\$11.8	\$12.8
Insurance, Claims & Payments to Other Agencies	\$69.5	\$67.5	\$68.0
Services from City Departments	\$62.1	\$67.5	\$69.2
Subtotal Operating Budget	\$946.9	\$1,034.3	\$1,086.1
Capital Projects Funded by Operating Revenues	\$71.0	\$147.6	\$168.0
TOTAL	\$1,017.9	\$1,181.9	\$1,254.1

fiscal year budget in even-numbered years, and it may submit budget amendments for the second fiscal year in odd-numbered years if the second year requires amending. The budget is approved by the SFMTA Board of Directors and is submitted to the Mayor and Board of Supervisors by May 1. The Mayor and the Board of Supervisors do not have line item authority over the SFMTA Budget. The Board of Supervisors may allow the SFMTA's entire budget to take effect without any action on its part or may reject the budget in its entirety by seventh-eleventh vote.

Detailed information on the development of the FY 2017 – FY 2018 Operating Budget and what it funds can be found here: <https://www.sfmta.com/projects-planning/projects/budget-fiscal-years-2017-and-2018>

LONG-TERM PROJECTED OPERATIONS REVENUES AND EXPENSES

The Operating Financial Plan goes beyond the projections for the two-year balanced budget. This financial plan is based on historical information, long term trends, and estimates of projected revenues and expenses for the agency. These projections are not designed to be an accurate forecast for any specific year, but instead help the agency and its stakeholders understand the projected financial picture. Therefore, the Operating Financial Plan reflects a balanced Operating Budget through FY 2016, as approved by the current Board of Directors, and a projection of future operating needs and expected operating revenues.

Specifically, the following assumptions were made:

- The SFMTA 5-Year Operating Plan (FY 2016 – FY 2020) assumes a 3 percent annual increase in operating expenses between FY 2017 and FY 2020. These projections are based on the FY

2016 approved operating budget as the starting base and includes certain costs above the base year, including but not limited to, transit service increase, Central Subway service, known negotiated labor increases, and investments in facility maintenance. Specifically, an increase in salaries and benefits includes 8 percent additional hiring, 3 percent cost of living adjustments per labor negotiations, and other benefits. A 10 percent approved increase in transit service is part of the FY 2016 base year.

- The SFMTA 5-Year Operating Plan also assumes a 3 percent annual increase in operating revenues between FY 2017 and FY 2020. These projections are based on the FY 2016 approved operating budget as the starting base and consist of certain expected adjustments. These include a decline in Taxi medallion sales, assumption of a 2 percent (instead of 3 percent) annual increase for operating grants (except Bridge Tolls which are assumed to be a flat amount for all future years based on feedback from MTC), additional revenue from development fees, cap and trade revenues for operations and fare revenues for additional service increases highlighted above.
- Between FY 2021 through FY 2040, operating expenses are projected to increase by 3-4 percent annually and revenue by 3-4 percent (except for Bridge Tolls which are assumed to be flat for all future years based on feedback from MTC).

FUNDING SFMTA OPERATIONS & CHANGES IN TRANSIT SERVICE

On March 28, 2014, the Board approved up to a 12 percent Muni Forward transit service increase. Ten

percent of this overall increase is to be implemented in the FY 2016 two-year budget cycle – a 3 percent service increase in FY 2015 and a 7 percent service increase in FY 2016.

These approved Muni Forward service increases as well as those associated with the Central Subway project are included in the Operating Expenses section (both labor and non-labor) in the Operating Financial Plan. These expenditures include the annual operating and maintenance (O&M) costs for this service, as calculated by the SFMTA O&M model: staff wages and benefits, fuel (electricity, diesel, and biodiesel), materials and supplies, professional services, etc.

The last line of the Operating Financial Plan shows the projected funding gap for FY 2017 through FY 2030. During each budget cycle, the SFMTA works with policy makers to close that gap through a combination of revenue measures and expenditure reductions.

PROJECTED CHANGES IN FARE REVENUES

Muni fare increases are based on a formula set in 2009 by the SFMTA Board of Directors to create a more predictable and transparent mechanism for setting charges. The formula is based on a combination of the Bay Area Consumer Price Index for all urban consumers (CPI-U) and labor costs. The projected increases in fare revenue are included as a consistent increase in the Operating Financial Plan.

Free Muni Program

In FY 2013 and FY 2014, the SFMTA ran a pilot program to provide free Muni for low income youth funded through a variety of grants. As a result of a gift from Google, the program was continued for FY 2015 and FY 2016. Additionally, in May 2015 the SFMTA Board extended the definition of youth from 17 to 18. In

January 2015, based on an evaluation of the fiscal health of the agency, the SFMTA Board voted to expand this program. The SFMTA now also provides free Muni for low and moderate income 18-year-olds, 19 - 22-year-olds enrolled in San Francisco Unified School District programs, seniors, and disabled riders who use a Clipper® card. More information and applications for this program can be found at www.sfmta.com/freemuni.

LABOR AND CONTRACT EXPENSES

The current labor agreements, negotiated in 2014-5, will end in fiscal year 2017 at which point expenses due to labor and service contracts may change. Increased

labor and contract expenses are included as an annual increase shown in the Operating Financial Plan.

PARATRANSIT FUNDING SOURCES

Paratransit Services, both Americans with Disabilities Act (ADA) service and non-ADA demand-responsive services, are funded through the mix of federal and local funding sources listed in the Operating Financial Plan.



RECENT HISTORY OF OPERATING EXPENSES AND REVENUES

Figure 12. SFMTA Operating Expenses, FY 2012- FY 2017 (in millions)

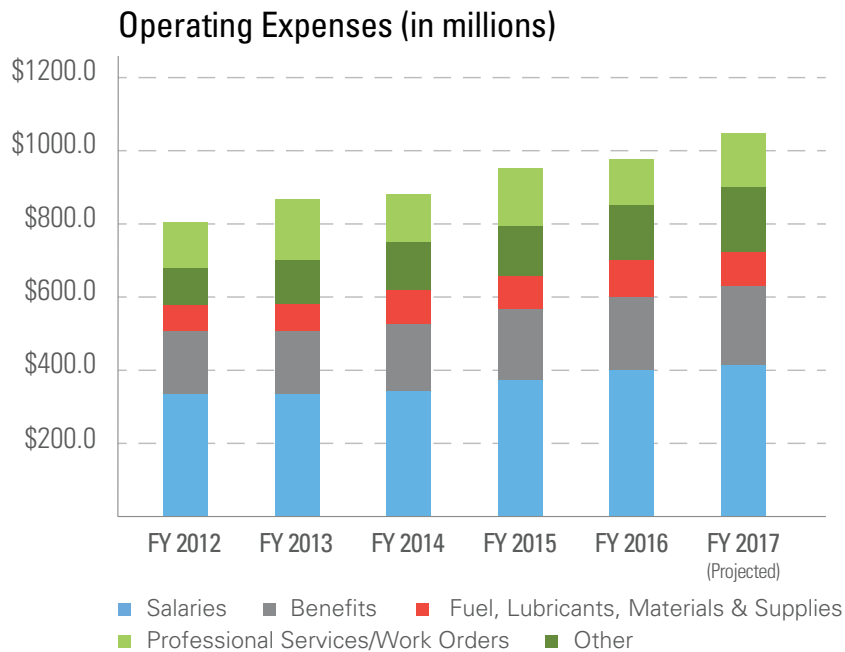


Figure 13. SFMTA Operating Revenues, FY 2012- FY 2017 (in millions)

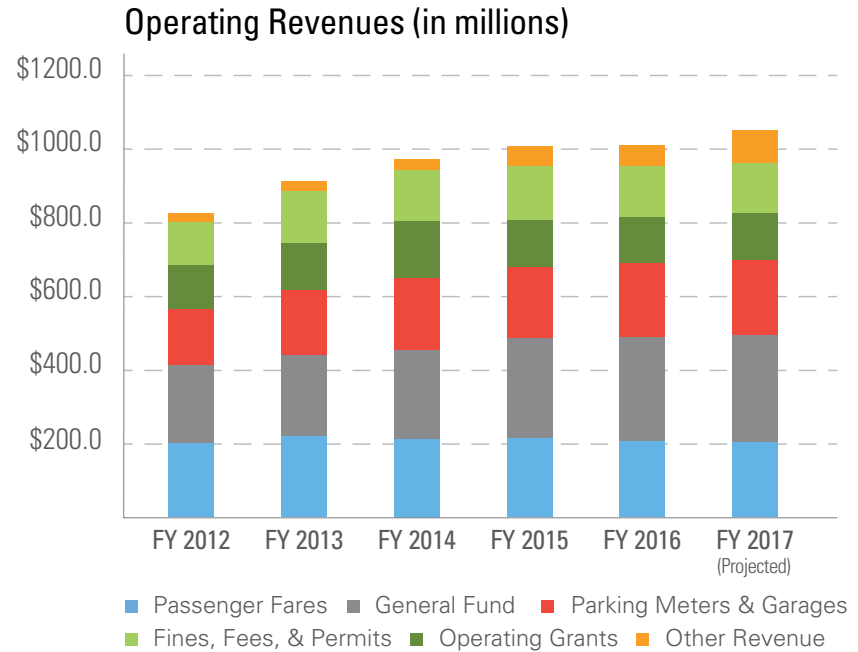




Table 24. SFMTA Operating Financial Plan (in \$ 1,000s), FY 2015 - FY 2032

CATEGORIES	ACTUALS FY 2014-15	ACTUALS FY 2015-16	BUDGET (a) FY 2016-17	BUDGET (a) FY 2017-18	5-YR PLAN (f) FY 2018-19	5-YEAR PLAN (f) FY 2019-20	5-YEAR PLAN (f) FY 2020-21	5-YEAR PLAN (f) FY 2021-22
Salaries	374,486.3	401,340.2	426,205.0	432,101.9	455,429.6	469,547.9	484,103.9	499,111.2
Fringe Benefits	196,893.2	199,426.9	217,479.6	243,273.5	242,664.8	254,092.4	266,069.5	278,622.8
Materials and Supplies	90,129.9	101,593.7	94,923.9	108,418.8	101,494.6	104,640.9	107,884.8	111,229.2
Professional Services & Work Orders	137,975.8	150,120.9	179,206.4	179,761.2	187,997.7	194,365.1	200,752.0	206,790.4
Other Operating Expenses	106,574.9	98,310.8	115,484.9	121,497.5	129,738.3	132,858.3	134,163.6	137,420.4
TOTAL OPERATING EXPENSES (b)	906,060.1	950,792.5	1,033,299.9	1,085,052.9	1,117,325.0	1,155,504.7	1,192,973.7	1,233,174.0
Planned Committed Projects (c)	0	0	0	0	0	0	0	0
Operating Contributions for Capital Projects, Future Operating Budget and Reserves	50,793.9	31,545.6	63,064.9	38,591.7	1,950.3	2,010.8	2,073.1	2,137.4
TSP Impact (% expense reduction starting FY 2018)	0	0	0	0	0	0	0	0
TOTAL OPERATIONAL NEEDS	956,854.0	982,338.1	1,096,364.8	1,123,644.6	1,119,275.3	1,157,515.5	1,195,046.8	1,235,311.4

a. FY 2017 & FY 2018 are based on approved SFMTA 2-year AAO budget. Budget data excludes capital project (CPF) included in annual appropriation ordinance.
 b. The SFMTA 5-Year Operating Plan assumes a 3.1% annual increase in operating expenses between FY 2019 and FY 2022, except Retirement City Misc. and Health & Dental at 5%. These projections are based on the FY 2018 approved operating budget as the starting base.
 c. The SFMTA 5-Year Operating Plan also assumes a 2.36-3.10% annual increase in operating revenues between FY 2019 and FY 2022. These projections are based on the FY 2018 approved operating budget as the starting base between FY 2023 through FY 2032, operating expenses are projected to increase based on FY2022 rates.
 d. Non-Fare revenue includes advertising, rental and supports from other SFMTA functions such as parking and taxi.
 e. County sales tax sunsets in FY 2022.
 f. FY 2019 to FY 2022 projections are based on Operating 5-Year Plan figures.



Table 24. (Continued) SFMTA Operating Financial Plan (in \$ 1,000s), FY 2015 - FY 2032

CATEGORIES	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30	FY 2030-31	FY 2031-32	18 Year TOTAL
Salaries	514,583.6	530,535.7	546,982.3	563,938.7	581,420.8	599,444.9	618,027.7	637,186.5	656,939.3	677,304.4	9,468,690.2
Fringe Benefits	291,780.7	305,572.4	320,029.0	335,182.9	351,068.3	367,720.8	385,178.0	403,479.4	422,666.1	442,781.5	5,523,981.6
Materials and Supplies	114,677.3	118,232.3	121,897.5	125,676.3	129,572.3	133,589.0	137,730.3	141,999.9	146,401.9	150,940.4	2,141,033.1
Professional Services & Work Orders	213,099.7	219,507.3	226,112.1	232,822.2	239,826.6	247,042.8	254,477.2	262,136.4	270,027.4	278,157.1	3,880,178.3
Other Operating Expenses	141,680.4	146,072.5	150,600.7	155,269.4	160,082.7	165,045.3	170,161.7	175,436.7	180,875.2	186,482.4	2,607,755.7
OPERATING EXPENSES (b)	1,275,821.7	1,319,920.1	1,365,621.6	1,412,889.6	1,461,970.7	1,512,842.8	1,565,574.9	1,620,239.0	1,676,910.0	1,735,665.8	23,621,638.9
Planned Committed Projects (c)	0	0	0	0	0	0	0	0	0	0	0
Operating Contributions for Capital Projects, Future Operating Budget and Reserves	2,203.7	2,272.0	2,342.4	2,415.0	2,489.9	2,567.1	2,646.7	2,728.7	2,813.3	2,900.5	212,172.0
TSP Impact (% expense reduction starting FY 2018)	0	0	0	0	0	0	0	0	0	0	0
TOTAL OPERATIONAL NEEDS	1,278,025.4	1,322,192.1	1,367,964.0	1,415,304.6	1,464,460.6	1,515,409.9	1,568,221.5	1,622,967.7	1,679,723.3	1,738,566.3	23,833,810.8

- a. FY 2017 & FY 2018 are based on approved SFMTA 2-year AAO budget. Budget data excludes capital project (CPF) included in annual appropriation ordinance.
- b. The SFMTA 5-Year Operating Plan assumes a 3.1% annual increase in operating expenses between FY 2019 and FY 2022, except Retirement City Misc. and Health & Dental at 5%. These projections are based on the FY 2018 approved operating budget as the starting base.
- c. The SFMTA 5-Year Operating Plan also assumes a 2.36-3.10% annual increase in operating revenues between FY 2019 and FY 2022. These projections are based on the FY 2018 approved operating budget as the starting base between FY 2023 through FY 2032, operating expenses are projected to increase based on FY2022 rates.
- d. Non-Fare revenue includes advertising, rental and supports from other SFMTA functions such as parking and taxi.
- e. County sales tax sunsets in FY 2022.
- f. FY 2019 to FY 2022 projections are based on Operating 5-Year Plan figures.

Table 24. (Continued) SFMTA Operating Financial Plan (in \$ 1,000s), FY 2015 - FY 2032

CATEGORIES	ACTUALS FY 2014-15	ACTUALS FY 2015-16	BUDGET (a) FY 2016-17	BUDGET (a) FY 2017-18	5-YR PLAN (f) FY 2018-19	5-YEAR PLAN (f) FY 2019-20	5-YEAR PLAN (f) FY 2020-21	5-YEAR PLAN (f) FY 2021-22
REVENUE FOR OPERATIONS								
Fares	214,698.3	206,757.5	205,880.0	207,936.1	214,313.2	220,888.1	227,666.7	234,655.5
Non-Fare Revenue (d)	356,962.5	360,832.1	412,767.8	420,941.4	391,278.2	402,582.4	414,184.2	426,128.1
Other (City General Fund Transfer)	272,340.0	284,730.0	292,540.0	299,310.0	313,710.4	332,951.4	349,598.9	367,078.9
County Sales Tax (e)	9,670.0	10,193.0	9,670.0	9,670.0	9,898.2	10,131.8	10,370.9	10,615.7
BART ADA -49103	1,499.1	1,578.2	1,000.0	1,000.0	1,023.6	1,047.8	1,072.5	1,097.8
Fund Balance	20,000.0	20,010.0	45,000.0	47,000.0	20,000.0	20,000.0	20,000.0	20,000.0
Bridge Tolls								
Regional Measure 2 Operating-49104	2,687.5	2,687.5	2,700.0	2,754.0	2,819.0	2,885.5	2,953.6	3,023.3
5% State General Fund Revenues								
TDA								
Article 4/8 and 4.5	45,099.3	44,230.6	41,230.7	41,653.1	42,636.1	43,642.3	44,672.2	45,726.5
AB 1107 - 47101	38,810.5	40,262.4	48,000.0	48,740.0	49,890.3	51,067.7	52,272.9	53,506.5
STA								
Revenue-Based	40,508.4	36,379.7	29,676.4	36,740.0	37,607.1	38,494.6	39,403.1	40,333.0
Population-Based								
Regional Paratransit	926.3	832.2	900.0	900.0	921.2	943.0	965.2	988.0
Gas Tax (g)	3,621.9	3,098.5	3,200.0	3,200.0	3,275.5	3,352.8	3,431.9	3,512.9
Federal Transit Grants								
5307 - 10% ADA Operating	3,783.6	3,990.7	3,800.0	3,800.0	3,889.7	3,981.5	4,075.4	4,171.6
Other Revenue Sources					\$ 28,012.8	25,546.8	24,379.2	24,473.5
TOTAL REVENUE	\$ 1,010,607.4	1,015,582.4	1,096,364.8	1,123,644.6	1,119,275.3	\$1,157,515.5	1,195,046.8	1,235,311.4
OPERATING SURPLUS/(DEFICIT)	53,753.4	33,244.3						

a. FY 2017 & FY 2018 are based on approved SFMTA 2-year AAO budget. Budget data excludes capital project (CPF) included in annual appropriation ordinance.

b. The SFMTA 5-Year Operating Plan assumes a 3.1% annual increase in operating expenses between FY 2019 and FY 2022, except Retirement City Misc. and Health & Dental at 5%. These projections are based on the FY 2018 approved operating budget as the starting base.

c. The SFMTA 5-Year Operating Plan also assumes a 2.36-3.10% annual increase in operating revenues between FY 2019 and FY 2022. These projections are based on the FY 2018 approved operating budget as the starting base between FY 2023 through FY 2032, operating expenses are projected to increase based on FY2022 rates.

d. Non-Fare revenue includes advertising, rental and supports from other SFMTA functions such as parking and taxi.

e. County sales tax sunsets in FY 2022.

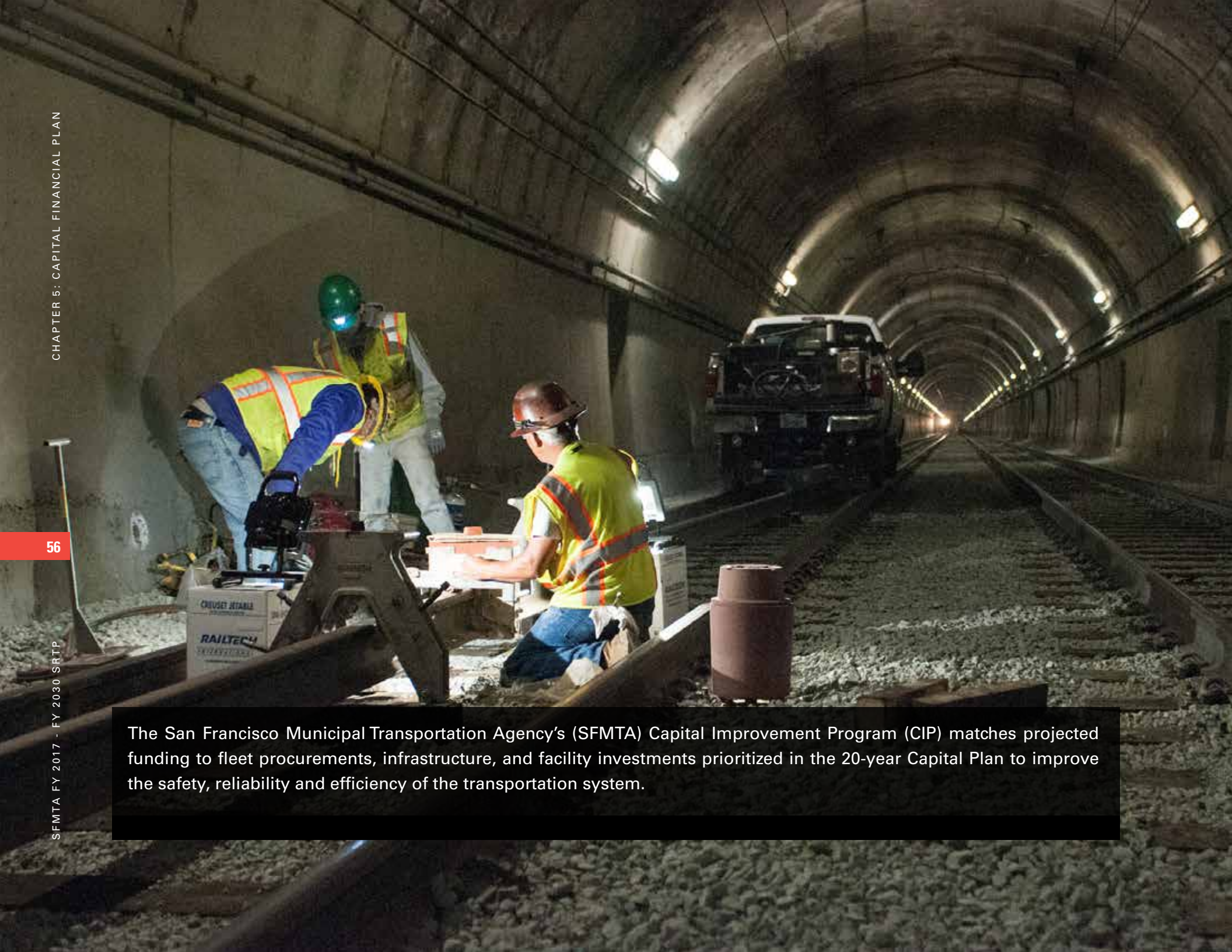
f. FY 2019 to FY 2022 projections are based on Operating 5-Year Plan figures.

g. SFMTA's share in gas tax revenue received by the San Francisco Department of Public Works which is transferred to SFMTA annually.

Table 24. (Continued) SFMTA Operating Financial Plan (in \$ 1,000s), FY 2015 - FY 2032

CATEGORIES	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30	FY 2030-31	FY 2031-32	18 Year TOTAL
REVENUE FOR OPERATIONS											
Fares	241,860.9	249,289.7	256,948.8	264,845.4	272,986.7	281,380.4	290,034.3	298,956.5	308,155.3	317,639.2	4,514,892.7
Non-Fare Revenue (d)	438,424.3	451,083.5	464,116.4	477,534.4	491,348.9	505,571.9	520,215.7	535,292.8	550,816.3	566,799.6	8,186,880.4
Other (City General Fund Transfer)	385,432.8	404,704.5	424,939.7	446,186.7	468,496.0	491,920.8	516,516.9	542,342.7	569,459.9	597,932.8	7,360,192.5
County Sales Tax (e)	-	-	-	-	-	-	-	-	-	-	80,219.6
BART ADA -49103	1,123.7	1,150.2	1,177.4	1,205.2	1,233.6	1,262.7	1,292.5	1,323.0	1,354.2	1,386.2	21,827.7
Fund Balance	20,000.0	20,000.0	20,000.0	20,000.0	20,000.0	20,000.0	20,000.0	20,000.0	20,000.0	20,000.0	412,010.0
Bridge Tolls											
Regional Measure 2 Operating-49104	3,094.7	3,167.7	3,242.5	3,319.0	3,397.3	3,477.5	3,559.6	3,643.6	3,729.6	3,817.6	56,959.4
5% State General Fund Revenues											-
TDA											
Article 4/8 and 4.5	46,805.6	47,910.3	49,040.9	50,198.3	51,383.0	52,595.6	53,836.9	55,107.4	56,408.0	57,739.2	869,915.9
AB 1107 - 47101	54,769.3	56,061.8	57,384.9	58,739.2	60,125.4	61,544.4	62,996.8	64,483.5	66,005.3	67,563.1	992,223.9
STA											
Revenue-Based	41,284.8	42,259.2	43,256.5	44,277.3	45,322.3	46,391.9	47,486.7	48,607.4	49,754.5	50,928.8	758,711.5
Population-Based											-
Regional Paratransit	1,011.3	1,035.2	1,059.6	1,084.6	1,110.2	1,136.4	1,163.3	1,190.7	1,218.8	1,247.6	18,633.8
Gas Tax (g)	3,595.8	3,680.7	3,767.6	3,856.5	3,947.5	4,040.7	4,136.0	4,233.6	4,333.5	4,435.8	66,721.5
Federal Transit Grants											
5307 - 10% ADA Operating	4,270.1	4,370.8	4,474.0	4,579.6	4,687.7	4,798.3	4,911.5	5,027.4	5,146.1	5,267.5	79,025.6
Other Revenue Sources	36,351.9	37,478.5	38,555.7	39,478.5	40,422.0	41,289.2	42,071.4	42,759.0	43,341.8	43,809.0	507,969.1
TOTAL REVENUE	\$ 1,278,025.4	1,322,192.1	1,367,964.0	1,415,304.6	1,464,460.6	1,515,409.9	1,568,221.5	1,622,967.7	1,679,723.3	1,738,566.3	23,926,183.6
OPERATING SURPLUS/(DEFICIT)											92,372.8

- a. FY 2017 & FY 2018 are based on approved SFMTA 2-year AAO budget. Budget data excludes capital project (CPF) included in annual appropriation ordinance.
- b. The SFMTA 5-Year Operating Plan assumes a 3.1% annual increase in operating expenses between FY 2019 and FY 2022, except Retirement City Misc. and Health & Dental at 5%. These projections are based on the FY 2018 approved operating budget as the starting base.
- c. The SFMTA 5-Year Operating Plan also assumes a 2.36-3.10% annual increase in operating revenues between FY 2019 and FY 2022. These projections are based on the FY 2018 approved operating budget as the starting base between FY 2023 through FY 2032, operating expenses are projected to increase based on FY2022 rates.
- d. Non-Fare revenue includes advertising, rental and supports from other SFMTA functions such as parking and taxi.
- e. County sales tax sunsets in FY 2022.
- f. FY 2019 to FY 2022 projections are based on Operating 5-Year Plan figures.
- g. SFMTA's share in gas tax revenue received by the San Francisco Department of Public Works which is transferred to SFMTA annually.



The San Francisco Municipal Transportation Agency's (SFMTA) Capital Improvement Program (CIP) matches projected funding to fleet procurements, infrastructure, and facility investments prioritized in the 20-year Capital Plan to improve the safety, reliability and efficiency of the transportation system.

CAPITAL FINANCIAL PLAN

SFMTA CAPITAL PLANNING GOALS, POLICIES & PROCESSES

The SFMTA develops multimodal and mode-specific strategies to determine the city's transportation capital needs and allocate resources effectively to meet its goals. The 20-year Capital Plan brings the elements of these strategies together and provides an unconstrained list of capital needs. These capital needs are prioritized based on performance criteria informed by the SFMTA Strategic Plan and determined by the SFMTA Executive Team.

The five-year Capital Improvement Program (CIP) takes the prioritized projects, plans, strategies, and initiatives from the 20-year Capital Plan and matches them with projected funding availability. This matching process results in a financially-constrained five-year program of projects for the transportation system in San Francisco. The CIP also develops a Strategic Investment/Value Analysis for project prioritization and funding, and strives to prevent funding accessibility from being a barrier to project delivery.

The CIP also serves as an implementation tool for the SFMTA Strategic Plan and other plans and strategies, ensuring that the actions and recommendations from that planning work are assigned funding and initiated on a predefined schedule. Significant community input is an integral part of development of the five-year CIP, and public engagement will continue to serve an essential role in further defining and improving the projects in the CIP prior to their implementation.

The FY 2017 – FY 2021 Capital Improvement Program (CIP) matches projects' funding sources to specific projects for the first half of this 10-year look ahead. It is a living document and technical adjustments to the CIP are made on an ongoing basis. Recent updates and detailed expenditure projections are online at: <https://www.sfmta.com/about-sfmta/reports/fy-2017-2021-capital-improvement-program>

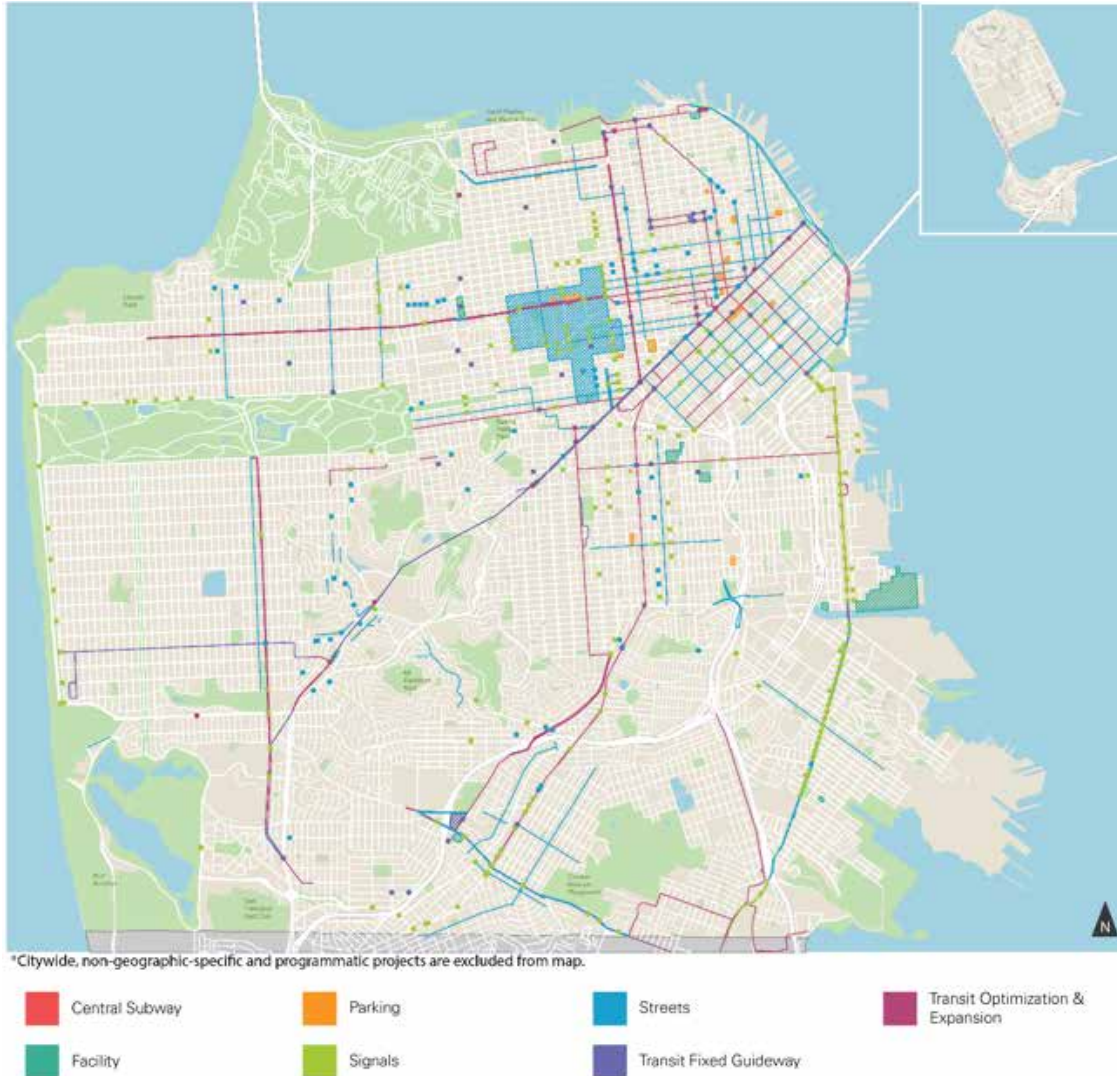
SFMTA 10-YEAR CAPITAL FINANCIAL PLAN

The 10-year Capital Financial Plan is a combination of the SFMTA's Capital Plan and Capital Improvement Program covering FY 2018 through FY 2027. The first four years of the 10-Year Capital Financial Plan are based on the FY 2017 - FY 2021 CIP and include updated spending projections based on revised revenue assumptions. These assumptions reflect events that have occurred since the publication of the FY 2017 - FY 2021 CIP including the voter rejection of Proposition K and revised sales tax projections. The remaining six years of the 10-Year Capital Financial Plan are based on forecasts made from the 2015 SFMTA 20-Year Capital Plan and the most recent revenue projections.

In July 2016, the SFMTA Board approved the FY 2017 - FY 2021 Capital Improvement Program that included funding for the following:

- State of Good Repair at an average of \$345 million per year, including full replacement of the Muni bus fleet, an ongoing transit fleet overhaul program, and increased funding for infrastructure and facilities;
- Street-related improvements, including significant funding for implementation of Vision Zero (Bicycle and Pedestrian Strategies); and
- Muni Forward projects, along with an increase in the light rail vehicle and articulated (60-foot) bus fleets.

Figure 14. FY 2017 – FY 2021 Capital Improvement Program Map



CAPITAL FUNDING SOURCES

In an effort to show local support for transportation, SFMTA and the City and County of San Francisco have undertaken a number of strategies to address transportation funding. The 2013 Mayor's Transportation Task Force recommended issuing two \$500 million general obligation bonds, restoring the state vehicle license fee to 2 percent, and implementing a half-cent sales tax dedicated to transportation.

The first of the two general obligation bonds was approved by voters in 2014, and has been programmed in the Capital Financial Plan. The next bond, anticipated for 2024, is not yet programmed and will be included as a separate line item in the Capital Improvement Program if and when approved by San Francisco voters. Additionally, the Transportation Sustainability Fee (TSF), which replaces and enhances the existing Transit Impact Development Fee (TIDF) for new developments, was approved and went into effect on December 26, 2015. The TIDF only applied to non-residential development, while the TSF applies to most new development and changes of use citywide, including large, market-rate residential projects. Affordable housing, small businesses and residential developments with 20 or fewer units are exempt. The fee amounts are assessed in proportion to the size and use of the proposed development. The fee is estimated to generate about \$14 million more per year than the former TIDF revenues.

SFMTA CAPITAL PROGRAMS

For budgeting and capital planning purposes, SFMTA's capital projects are sorted into capital programs that generally reflect the type of investment. However, due to the multimodal nature of most SFMTA projects, the line-by-line amount for each program does not reflect the total investment in that type of transportation infrastructure or program. For example, many transit enhancement projects also have elements that will improve accessibility and infrastructure for people walking and bicycling.

Table 25. FY 2018 - FY 2027 Summary of Anticipated Capital Funding by Source, as of December 2016

FUNDING SOURCE	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023-27	TOTAL REVENUE
Federal	\$ 247,679,671	\$ 147,519,704	\$ 165,204,719	\$ 86,452,903	\$ 136,680,254	\$ 1,045,311,371	\$ 1,828,848,622
State	\$ 15,043,948	\$ 1,325,000	\$ 6,125,000	\$ 12,509,000	\$ 5,000,000	25,000,000	\$ 65,002,948
Cap & Trade	\$ 78,550,000	-	-	-	-	-	\$ 78,550,000
General Obligation Bond	\$ 78,099,669	\$ 91,072,640	\$ 87,356,386	\$ 13,526,473	-	\$ 95,000,000	\$ 365,055,168
Revenue from Future Ballot Initiatives	-	-	\$ 21,435,000	\$ 42,870,000	\$ 42,870,000	\$ 214,350,000	\$ 321,525,000
Revenue Bond	-	\$ 73,334,000	\$ 1,666,000	\$ 75,000,000	-	\$ 100,000,000	\$ 250,000,000
Other Local	\$ 240,760,623	\$ 272,157,995	\$ 133,501,612	\$ 75,833,461	\$ 79,581,484	\$ 381,543,797	\$ 1,183,378,971
TOTAL	\$ 660,133,911	\$ 585,409,339	\$ 415,288,717	\$ 306,191,837	\$ 264,131,738	\$ 1,861,205,167	\$ 4,092,360,709

Table 26. FY 2018 - FY 2027 Planned Capital Investment by Program, as of December 2016

PROGRAMS/ PROJECTS	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023-27	PLAN TOTAL	BACKLOG DEFERRED
Communications/IT Infrastructure	\$ 350,000	\$ 700,000	\$ 700,000	\$ 700,000	\$ 700,000	\$ 3,500,000	\$ 6,650,000	\$ 68,283,567
Facility	\$ 47,742,781	\$ 23,614,650	\$ 7,080,000	\$ 42,080,000	\$ 1,580,000	\$ 68,900,000	\$ 190,997,431	\$ 931,361,819
Fleet	\$ 337,244,684	\$ 149,995,870	\$ 93,499,436	\$ 70,441,129	\$ 135,637,960	\$ 996,596,507	\$ 1,783,415,586	\$ 880,694,708
Parking	\$ 5,000,000	\$ 10,000,000	-	-	-	\$ 15,000,000	\$ 30,000,000	\$ 186,439,117
Security	\$ 10,070,567	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	-	-	\$ 19,070,567	\$ 9,196,933
Streets	\$ 56,158,059	\$ 85,271,910	\$ 51,789,817	\$ 48,449,000	\$ 50,119,409	\$ 242,767,888	\$ 534,556,082	\$ 509,192,902
Taxi	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 2,000,000	\$ 4,000,000	\$ 40,937,500
Traffic & Signals	\$ 28,452,045	\$ 15,206,250	\$ 7,995,270	\$ 11,840,157	\$ 9,922,714	\$ 45,144,358	\$ 118,560,793	\$ 159,555,634
Transit Fixed Guideway	\$ 47,003,918	\$ 57,289,097	\$ 34,947,798	\$ 35,476,917	\$ 35,212,358	\$ 185,042,706	\$ 394,972,794	\$ 224,013,417
Transit Optimization & Expansion	\$ 127,711,857	\$ 239,931,562	\$ 215,876,396	\$ 93,804,634	\$ 30,559,298	\$ 302,253,709	\$ 1,010,137,456	\$ 2,206,172,733
TOTAL	\$660,133,911	\$585,409,339	\$ 415,288,717	\$ 306,191,837	\$ 264,131,738	\$ 1,861,205,167	\$ 4,092,360,709	

TRANSIT CAPITAL PROGRAMS

TRANSIT OPTIMIZATION & EXPANSION

SFMTA is currently embarking on an ambitious plan to modernize and expand Muni, collectively called Muni Forward. These initiatives will make Muni more efficient, reliable, safe and comfortable for its existing 700,000 daily passengers – and will help prepare the system for future growth. Many of the Muni Forward projects in the Transit Optimization & Expansion CIP were planned through the Transit Effectiveness Project's (TEP) years of data collection, intensive planning and public outreach efforts. The SFMTA is also implementing a combination of policies, programs, services, and facility upgrades that help optimize transportation infrastructure and operations, and support the use of sustainable modes for all trips. The Major Expansion Projects section of this document has a more detailed update on two other ongoing major infrastructure projects, the Central Subway and the Van Ness Bus Rapid Transit Project.

MUNI FORWARD CAPITAL IMPROVEMENTS

Muni Forward includes engineering improvements—also known as Transit Priority Projects (TPPs)—designed to address transit delay, improve reliability, and increase the safety and comfort of customers along the most heavily used Rapid routes. The TPPs include a variety of standard roadway and traffic engineering features that specifically address the root causes of delay and passenger frustration, including traffic congestion, transit stops that are spaced too close together, narrow travel lanes, and slow boarding times. These elements are referred to as the Transit Priority Features (TPF) and include lane modifications, traffic signal and stop sign changes, transit stop changes,

Figure 15. Muni Forward Transit Priority Projects, status as of June 2016



parking and turn restrictions, pedestrian improvements, and many others.

Detailed proposals have been developed for eleven corridors and conceptual proposals were developed for an additional six. As the TPPs affect the allocation of scarce roadway space among different users by utilizing space for elements that prioritize transit, more than one alternative was typically proposed at locations with limited roadway space, each balancing different trade-offs. The precise components of each Muni Forward

Transit Priority Project to be implemented will be decided by the SFMTA Board of Directors, who will consider the details of the project proposals as well as the results of the environmental impact analysis, following public outreach for each individual Muni route.

Muni Forward Transit Priority Projects will be implemented based on funding and resources available. As of May 2016, more than ten projects (40 miles of investment) are in the preliminary planning and engineering stages and have funding strategies identified for construction.

Of these projects 21 miles have been approved and are either under construction or will be in the near future. To minimize customer disruption and optimize financing, projects will be implemented in segments.

The City and County of San Francisco's 2014 Capital Plan and the San Francisco 2030 Transportation Task Force (T2030) have both recommended General Obligation Bond (GO Bond) funding for design and construction of many Muni Forward projects. On November 4, 2014, San Francisco voters approved Proposition A which included \$150 million in funding to design and build Muni Forward projects. Future funding is expected from other sources for a combined total funding of \$230 million. Vision Zero improvements, including bicycle, pedestrian, and accessibility capital improvements will be built in coordination with Muni Forward Transit Priority Projects to improve safe and easy access to transit.

Project Area: The Rapid & Transit Priority Network of core routes serves nearly 70 percent of all riders all over the city. These projects are geographically diverse and improve the network as a whole, thereby improving transit service for all customers.

Estimated Project Cost: The following is only a partial list of the Transit Optimization projects that the SFMTA will implement in the near term. More information on specific project costs and funding sources is available in the SFMTA FY 2017 – FY 2021 Capital Improvement Program document and the periodic Status Reports to the General Obligation Bond Oversight Committee.

Construction Timeline: The Muni Forward Rapid Network Capital Improvements were environmentally cleared through the TEP planning effort in March 2014. Construction is underway on many projects.

More detail on line-by-line enhancements can be found on the individual route pages in the Muni Forward Implementation Workbook posted on: <http://www.sfmta.com/projects-planning/projects/muni-forward-implementation-plan>

Table 27. Ongoing and Future Muni Forward Projects

PROJECT NAME	CATEGORY	TOTAL BUDGET
Surface Signaling on Embarcadero and Third Street	Near-Term Rail Safety and Capacity	\$11,348,000
Turnback PocketTrack at Harrison	Near-Term Rail Safety and Capacity	\$10,120,000
West Portal Transit Safety and Reliability Project	Near-Term Rail Safety and Capacity	\$1,629,000
14 Mission - 11th St to Randall (Inner) Rapid Project	Muni Forward/Equity Projects	\$3,320,000
14 Mission - Randall to Terminal (Outer) Rapid Project	Muni Forward/Equity Projects	\$8,550,000
14 Mission - Spear to 11th St (Downtown) Rapid Project	Muni Forward/Equity Projects	\$8,307,000
14 Mission Overhead Contact System (OCS) Improvements on Mission Street between 30th and Cortland	Muni Forward/Equity Projects	\$1,500,000
22 Fillmore - 16th Street Transit Priority Project	Muni Forward/Equity Projects	\$67,065,000
22 Fillmore - OCS on Church/Duboce Transit Priority Project	Muni Forward/Equity Projects	\$2,000,000
27 Bryant Tenderloin Transit Reliability Project	Muni Forward/Equity Projects	\$6,890,000
28 19th Ave - South of Golden Gate Park Rapid Project	Muni Forward/Equity Projects	\$22,965,000
30 Stockton - Chestnut Transit Priority Project	Muni Forward/Equity Projects	\$6,510,000
30 Stockton - North Point & Polk (coordinated with Polk Streetscape) Transit Priority Project	Muni Forward/Equity Projects	\$372,000
30 Stockton - North Point, Columbus, and Northern Stockton to Broadway Transit Priority Project	Muni Forward/Equity Projects	\$6,400,000
30 Stockton - OCS Marina Terminal Upgrades	Muni Forward/Equity Projects	\$4,307,000
30 Stockton - Stockton (Broadway to Tunnel) Transit Priority Project	Muni Forward/Equity Projects	\$8,705,000
30 Stockton - Van Ness & Bay (coordinated with Van Ness BRT) Transit Priority Project	Muni Forward/Equity Projects	\$404,000
31 Balboa Transit Priority and Pedestrian Accessibility Improvements	Muni Forward/Equity Projects	\$1,440,000
7 Haight-Noriega - Stanyan to Masonic + Signals Transit Priority Project	Muni Forward/Equity Projects	\$14,171,000
8 Bayshore - Geneva & Visitacion Valley Transit Priority Project	Muni Forward/Equity Projects	\$20,698,000
8 Bayshore - San Bruno Ave	Muni Forward/Equity Projects	\$4,076,000
L Taraval - Surface Route Rapid Project	Muni Forward/Equity Projects	\$63,589,000
N Judah - Carl and Cole Transit and Streetscape Enhancements	Muni Forward/Equity Projects	\$450,000
Better Market Street	Citywide Corridor Projects	\$160,122,000
Geary BRT Phase 1: Design and Construction of Near-Term Improvements	Citywide Corridor Projects	\$32,780,000
Geary BRT Phase 2: CER & Preliminary Detail Design	Citywide Corridor Projects	\$21,100,000
Geneva Harney Bus Rapid Transit Project	Citywide Corridor Projects	\$31,304,000
M Line / 19th Avenue Subway	Citywide Corridor Projects	\$22,800,000
California Cable Car Safety Improvements	Other Transit Safety & Reliability Improvements	\$3,000,000
Central Subway Phase 3 Planning and Outreach	Other Transit Safety & Reliability Improvements	\$1,250,000
E/F - Pier 39 Platform Relocation	Other Transit Safety & Reliability Improvements	\$946,000
Transit Signal Priority Installation (Bus and Rail)	Other Transit Safety & Reliability Improvements	\$30,665,000

BETTER MARKET STREET

This project will deliver improvements on Market Street, with the goal to revitalize Market Street from Octavia Boulevard to Steuart Street and reestablish the street as the premier cultural, civic and economic boulevard. This project will create a sense of place, optimize mobility, and foster economic development by:

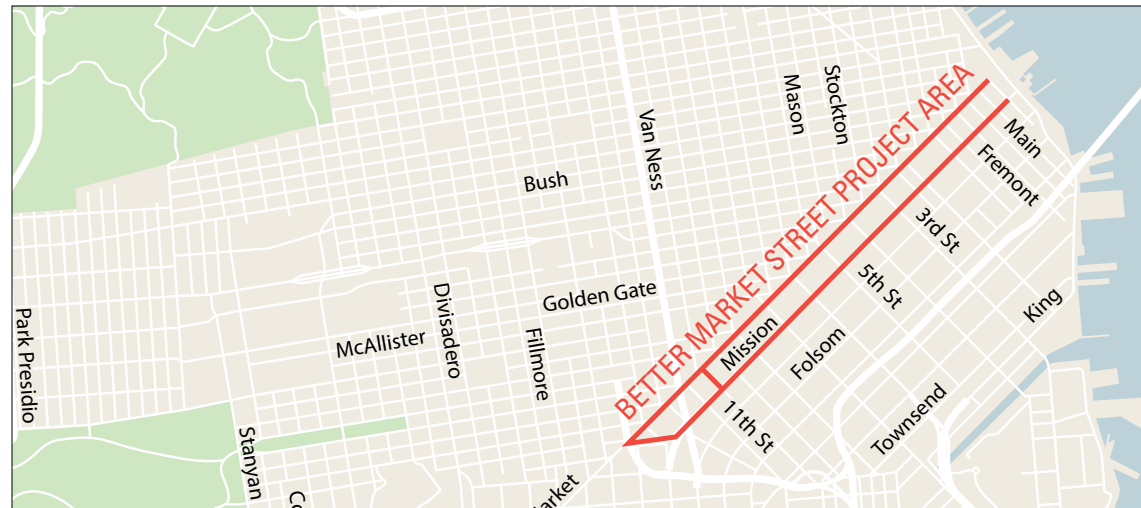
- Supporting the City of San Francisco's planned growth and economic development.
- Providing faster and more reliable transit service for all users.
- Improving safety, comfort and mobility for people on foot and people on bicycles.
- Creating thriving public spaces that attract a diversity of people and uses.

There are currently three design options that will be included in the environmental review documents. The specific design varies, but each of the alternatives have elements that will enhance the sidewalks and pedestrian safety, improve the bicycle facilities, and make transit safer, faster, and more reliable.

The Better Market Street project is an interagency effort led by the Department of Public Works with substantial input from the design team consisting of staff from: the SFMTA (transportation lead), the Public Utilities Commission (sewer, water, and auxiliary water lead), the Planning Department (urban design lead), the Office of Economic and Workforce Development, and the County Transportation Authority.

Project Area: The project encompasses Market Street between Octavia Boulevard and Steuart Street. Alternative 3 would also include improvements on Mission Street.

Figure 16. Better Market Street Project Area



Estimated Project Cost: Better Market Street has many coordinating projects within its scope. In 2014, the SFMTA's Transit Optimization & Expansion CIP initially programmed \$124 million as the SFMTA's contribution to this multi-agency project over the next five years. However, this was based on a preliminary scope of work and as the project develops and goes through the in-depth analysis associated with environmental review, Public Works, the SFMTA, and the other city departments will develop a strategy to fully fund this approximately \$400 million project. Preliminary engineering has begun on the project, and updated cost estimates should be available near the end of 2017.

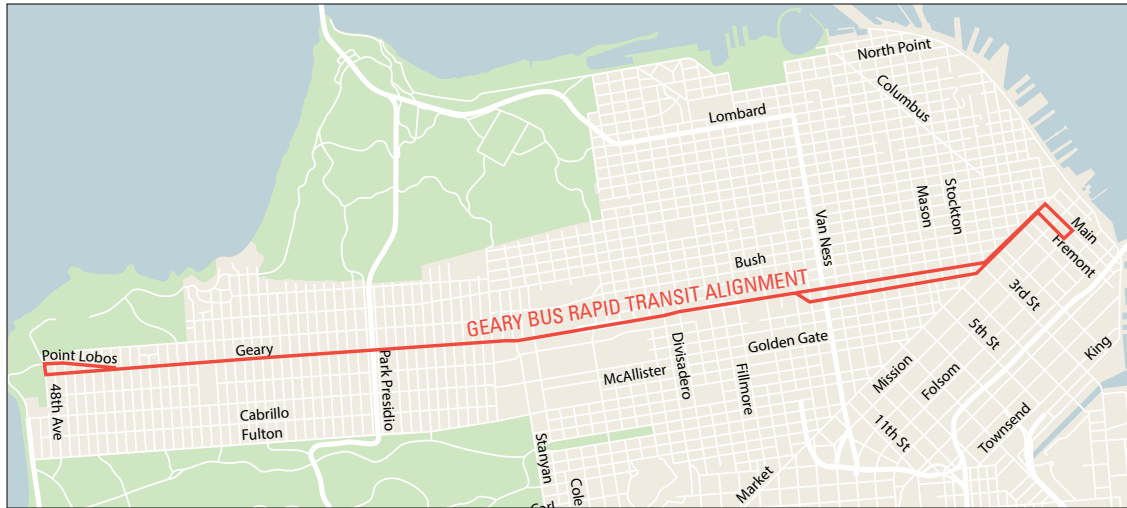
Construction Timeline: The project is currently under CEQA review and is developing the scope for NEPA review. The environmental review is expected to continue through 2018, with detailed design likely continuing through 2021. The earliest start for construction would be 2022, pending funding.

More information on the Better Market Street project can be found online at: <http://www.bettermarketstreetsf.org/>.



Overhead view of traffic on Market Street, between Van Ness Avenue and Polk Street, October 2014

Figure 17. Geary Bus Rapid Transit Project Area



GEARY BUS RAPID TRANSIT PROJECT

Geary is one of the most heavily used surface transit corridors in the western United States with over 52,000 daily riders. The Geary corridor is also part of the city's Vision Zero high-injury network and has a collision rate eight times the citywide average. The goals of the Geary Bus Rapid Transit (BRT) Project are to offer more efficient and reliable transit service, manage increasing traffic congestion, improve safety conditions, and update the existing infrastructure and streetscape to provide a more complete street.

The proposed project elements include: dedicated bus lanes, stop optimization and consolidation, signal improvements and advanced Transit Signal Priority (TSP) infrastructure, high-quality bus shelters, and new surface crossings and intersection treatments such as bulb outs.

Project Area: The Geary BRT project area covers the Geary corridor from Market Street to 34th Avenue, including Geary Boulevard, Geary and O'Farrell streets.

Estimated Project Cost: The cost estimate for the full project is approximately \$300 million. The SFMTA's Transit Optimization & Expansion CIP has programmed approximately \$40 million for initial project phases over the next five years. Environmental Impact Report (EIR) certification and selection of a locally preferred alternative (LPA) by the San Francisco County Transportation Authority Board occurred in January 2017. The project will continue to work to complete a Final Environment Impact Statement (EIS) in 2017 and will then prepare to compete for an FTA small starts grant of up to \$100 million. As the project is further defined after the environmental review process, this cost will be refined as needed.

Construction Timeline: To streamline project delivery, and offer transit and safety benefits to people traveling on the corridor in the near-term, Geary BRT proposals will be implemented in two phases as part of two distinct projects. The first set of transit and safety improvements east of Stanyan, called the Geary Rapid project, would extend the existing side-running bus-only lanes to Stanyan, widen the sidewalk at over 40 street corners and upgrade utilities along some segments. After outreach, these improvements will be presented to the SFMTA Board of Directors for approval. After approval, the SFMTA would roll out improvements in phases, to be completed by 2020. Construction of the second phase of improvements from Stanyan west is called the Geary Boulevard Improvement Project. It would include redesign of the street to construct center-running bus only lanes with new lighting, landscaping, and utilities, and would begin construction no sooner than 2019.

More information on Geary Bus Rapid Transit can be found online at: <http://sfmta.com/projects-planning/projects/geary-bus-rapid-transit>.



Geary BRT will incorporate enhancements like new crosswalks and bulbouts to improve pedestrian safety along the corridor

Figure 18. Geneva-Harney Bus Rapid Transit Project Area



GENEVA-HARNEY BUS RAPID TRANSIT PROJECT

The Geneva-Harney BRT project closes a critical east-west gap in San Francisco's rapid transit network. The seven mile project will provide exclusive bus lanes, transit signal priority, high-quality stations, low floor buses and pedestrian and bicycle amenities between Balboa Park and the future Hunters Point Transit Center in the Candlestick Point - Hunters Point Shipyard redevelopment area. High capacity, high frequency bus service will be provided to the communities of Outer Mission, Crocker-Amazon, Visitacion Valley, Executive Park and newly developed areas of Candlestick Point and The Shipyard at Hunters Point. The project will also provide BRT service to the Bayshore neighborhood of Daly City.

SFMTA is currently undertaking a pre-environmental analysis of the first phase of this two-phase project:

- Phase 1: BRT implementation serving Southeast San Francisco and Daly City using existing right of way, and performing planning and environmental review work on the US 101

interchange and Geneva Avenue extension projects. The US 101 interchange project will be led by the San Mateo County Transportation Authority (SMCTA) or their designee agency. The City of Brisbane has been identified as the Sponsor Agency for the Geneva Avenue extension project.

- Phase 2: Implement the US 101 interchange and Geneva extension projects and operate BRT service on the newly constructed infrastructure. The final definition of this second phase of the project is subject to change pending the results of future studies, commitments for completing funding commitments for these projects and approvals by the SFMTA and SMCTA Boards.

Project Area: The Geneva-Harney BRT project area consists of Geneva Avenue from San Jose Avenue to Bayshore Boulevard and Bayshore Boulevard to Arleta Way / Blanken Avenue. From Blanken Avenue east to Harney Way at Thomas Mellon Drive, several potential alignment routes are currently under review.

From Harney Way at Thomas Mellon Drive, the BRT route will travel on a mix of an exclusive transit guideway and mixed-flow operations east through the Candlestick Point and The Shipyard at Hunters Point developments, ending at the future Hunters Point Transit Center.

Estimated Project Cost: The SFMTA's Transit Optimization & Expansion CIP has programmed \$31.3 million for the environmental review, preliminary engineering, final design and initial construction phases through 2021. An order of magnitude estimate for total project costs is approximately \$100 million and an updated project cost estimate will be developed during the environmental review process. Capital costs for Phase 2 have not been defined at this time.

Construction Timeline: The current project timeline anticipates completing environmental review and preliminary engineering for the Phase 1 BRT project at the end of 2019, followed by SFMTA Board action on a recommended project alternative. Completion of detailed project design is expected by 2021, with completion of Phase 1 BRT construction by the end of 2023.

No timeline has been set for construction of the Phase 2 BRT project by San Mateo County. Funding for environmental review for the US 101 interchange has been proposed in the San Mateo County transportation project list for Plan Bay Area 2040.

More information on the Geneva-Harney Bus Rapid Transit project can be found online at: <http://www.sfcta.org/geneva-harney-bus-rapid-transit-feasibility-study>.



CENTRAL SUBWAY

The Central Subway Project will construct a modern, efficient light rail line that will improve public transportation in San Francisco. This new 1.7-mile extension of Muni's T Third Line will provide direct connections to major retail, sporting and cultural venues while efficiently transporting people to jobs, educational opportunities and other amenities throughout the city. With stops in South of Market (SoMa), Yerba Buena, Union Square and Chinatown, the Central Subway will vastly improve transit options for the residents of one of the most densely populated neighborhoods in the country, provide a rapid transit link to a burgeoning technology and digital-media hub, and improve access to a premier commercial district and tourist attraction.

The Central Subway Project is the second phase of the SFMTA's Third Street Light Rail Transit Project. Phase 1 of the project, which was completed in April 2007, constructed a 5.4-mile light-rail line along the densely populated 3rd Street corridor. Phase 2, the Central Subway, will extend the T Third Line from the 4th Street Caltrain Station to Chinatown. Due to the large budget and scope of the project, Central Subway was designated as a separate program in this five-year CIP. More information on the Central Subway project can be found in the Expansion Projects section of this document.



TRANSIT FIXED GUIDEWAY

Muni's Transit Fixed Guideway light rail, streetcar and historic cable car services are a crucial component of transportation in San Francisco. With over 70 miles of track and 189,000 daily customers, vehicles on Muni's Fixed Guideway rights-of-way carry nearly 30 percent of daily Muni ridership.

Muni's Fixed Guideway CIP covers a broad spectrum of capital projects to maintain, replace, and enhance these services. Projects are supported by a combination of local, regional, statewide and federal sources and can span everything from rail grinding to station improvements, including: investing in new train control technology; track replacement; maintenance facility upgrades; and maintaining Muni's over 150 miles of overhead wires.

This capital program is also very closely related to the Communications & Information Technology Infrastructure capital program and the implementation of the projects are coordinated as much as possible to avoid additional disruptions to service. For example, the replacement of the blue light phone system is scheduled during the shutdowns for the Twin Peaks Tunnels rail replacement so that all infrastructure upgrades may be constructed at the same time.



Muni Fixed Guideway projects planned for the near term include investments in new track switching systems at up to 38 critical locations throughout the city; track repairs on the L Taraval Line, the F Market/Wharves line, and the M Oceanview Line at 19th Ave and Rossmoor; phase I of rail grinding from Castro to Embarcadero stations, Van Ness Station and Muni Metro Turnback subway replacement wiring; and phase II of the overhead wire replacement on the 33 Stryan route. Additionally, there are major near-term fixed guideway upgrades that will improve operations and maintain the agency's infrastructure at the Twin Peaks Tunnel Rail Replacement and the Mission Bay Loop.

The SFMTA recently completed the Rail Capacity Strategy, a strategic planning effort in assessing the capacity needs of the light rail system. The SFMTA has developed the Rail Capacity Strategy to identify where rail capacity is needed, and which improvements to infrastructure or transit service will help meet those needs. Recommended strategies include alleviating bottlenecks, improving the vehicle fleet, expanding or extending the light rail system, and building system resiliency. The strategy also informs the Metropolitan Transportation Commission (MTC) led Transbay Core Capacity Study as well as the next Regional Transportation Plan.

Figure 19. Sunset Tunnel Rail Replacement Project Area



SUNSET TUNNEL RAIL REPLACEMENT

The Sunset Tunnel Trackway Improvement Project aims to improve the safety and reliability of the N Judah Line by replacing track and other infrastructure inside the Sunset Tunnel. The project will bring the following improvements to the tunnel and the N Judah Metro Line:

- Rail replacement: New track for a smoother, faster ride on Muni
- Overhead Contact System (OCS) replacement: An improved overhead wire system to enhance safety and reliability of the N Judah Line
- Fire safety system upgrades: Refurbishing fire water valves
- Seismic upgrades: Structural retrofit of the Sunset Tunnel portal retaining walls and their foundations
- Traffic signal upgrades: Addition of transit signal priority for rail cars at nine intersections

- Accessible platforms: Construction of two accessible platforms at 28th Avenue to provide safe boardings for all customers

Project Area: The Sunset Tunnel Trackway Improvement Project will improve the tunnel infrastructure located between Cole Valley and Duboce Triangle, upgrade the transit signals at the Irving Street/Sunset Boulevard intersection and along the N Judah corridor from 19th Avenue to Stanyan Street. The new accessible platforms will be constructed at 28th Avenue.

Estimated Project Cost: The Sunset Tunnel Rail Replacement project is expected to cost \$29.3 million.

Construction Timeline: The construction contract was awarded in January 2014, and weekend construction began in Fall 2014. The construction work is anticipated to be substantially completed by Summer 2017.



N Judah turning at 9th Avenue



N Judah on Judah Street in the Sunset District



Dragging new rail pieces into the Sunset Tunnel, May 2015



Castro Station

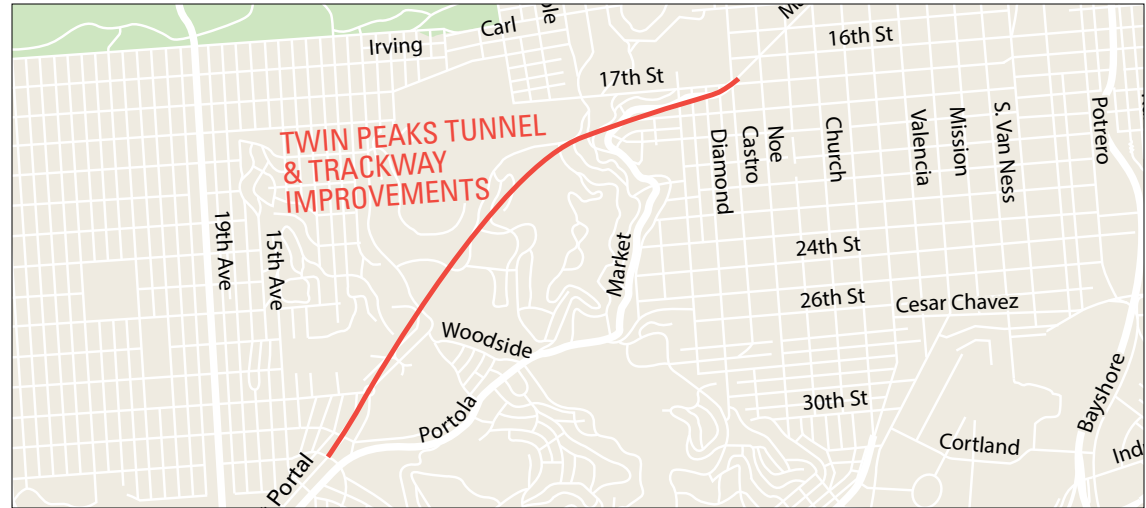


Forest Hill Station



West Portal Station

Figure 20. Twin Peaks Tunnel Rail Replacement Project Area



TWIN PEAKS TUNNEL RAIL REPLACEMENT

The rail upgrades to the Twin Peaks Tunnel will bring the tunnel into a state of good repair, thereby improving the safety and reliability of the Muni Metro system. This project includes:

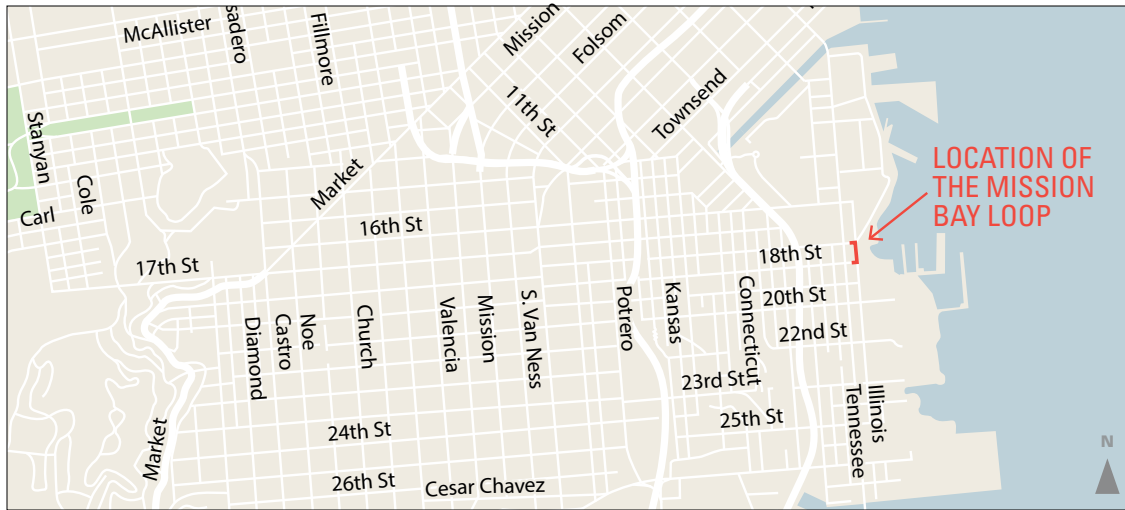
- Replacing the existing light rail tracks and track fittings
- Replacing the machines which operate the track switching mechanisms
- Seismic upgrades to an existing abandoned station (Eureka Valley Station)
- Improving structure support between West Portal and Forest Hill stations
- Installing fire alarm system at West Portal Station
- Repairing areas on concrete walls and reinforcements
- Inspecting and cleaning tunnel's drainage systems

Project Area: The Twin Peaks Tunnel Rail Replacement will improve the tunnel infrastructure located between West Portal and the Castro Stations, the geographic center of the city.

Estimated Project Cost: The Twin Peaks Rail Replacement project is expected to cost \$62 million.

Construction Timeline: Construction has been delayed due to concerns with shutting down the Twin Peaks Tunnel 21 times as indicated in the contract. Construction should begin in Summer 2017, and it is anticipated that the contract work will be completed by late Summer 2018.

Figure 21. Mission Bay Loop Project Area



MISSION BAY LOOP

The proposed Mission Bay Loop was designed in 1998 as part of the Third Street Light Rail Project that opened for service in 2007. The Loop will provide turn-around capabilities for the T Third and is required to operate additional service when the Central Subway opens in 2019. The Mission Bay Loop will also enable the removal of disabled trains, and provide a means to turn trains for special events and service increases.

However, due to budget constraints, construction of the Mission Bay Loop was deferred until 2013 when Central Subway construction was significantly underway and the federal TIGER Grant funding was secured.

Project Area: The proposed Loop would be constructed in the Central Waterfront area of the City and County of San Francisco, on city roads and rights-of-way

on the blocks of 18th, Illinois, and 19th Streets. The existing trackway on 18th and 19th Streets between Third and Illinois Streets would be extended to Illinois Street to complete the Loop. Traffic, pedestrian, and train signals would be installed at the intersections of 18th and Illinois Streets and 19th and Illinois Streets.

Estimated Project Cost: The Mission Bay Loop is expected to cost \$6.8 million over the next year.

Construction Timeline: The environmental review has been completed and construction was scheduled to start in 2015. Construction was delayed by a lawsuit questioning the projects CEQA clearance. Construction began in 2016 and is expected to be complete in Summer 2017.



Street view of the partial track laid at 18th Street at Third Street during the T Third Phase 1 construction.



Aerial view of the partial track laid on Third, 18th, and 19th streets. Construction of the Loop would connect the partial tracks on 18th and 19th streets, via Illinois Street on the eastern side of the block.

image: Google Earth

Figure 22. Subway Expansion Project Area



MUNI SUBWAY EXPANSION PROJECT

The Muni Subway Expansion Project proposes to build a new 2 mile subway tunnel from West Portal to Parkmerced in order to locate the entire M-Line underground. This project is intended to improve Muni Metro speed and reliability, increase subway capacity, reduce crowding, and improve safety on 19th Avenue. The project would introduce routing changes to improve Muni Metro performance throughout the entire system. New subway stations would be built to accommodate four-car light rail trains, doubling the line's current capacity.

The project would also completely re-design 19th Avenue from Eucalyptus Drive to Junipero Serra Boulevard, providing safer access to transit as well as improving safety and attractiveness of the street for all users.

Project Area: The proposed project would construct a subway tunnel from West Portal Station to south of the intersection of 19th Avenue and Junipero Serra Boulevard, with a spur extension to Parkmerced. The subway tunnel would be built under the existing light rail tracks used by the M-Line. The proposed project would also re-design the surface of 19th Avenue from Eucalyptus Drive to Junipero Serra Boulevard.



Boarding platform for M-Line

Estimated Project Cost: The Muni Subway Expansion Project planning-level cost estimate is \$2.5 to \$3 billion in 2016 dollars.

Construction Timeline: This project is still in the early planning stages and will need to be confirmed as a priority as a part of San Francisco's Long Range Transportation Planning Program (Connect SF) before commencing environmental review, potentially in 2018. A project schedule for design and construction would be established at a later date after a funding strategy has been confirmed.

FLEET

The Fleet Capital Improvement Program ensures that Muni's over 1,000 service vehicles across 75 transit lines are safe, comfortable, clean, and reliable for San Francisco passengers. In recent years, the SFMTA has prioritized renovating or replacing vehicles as they near the end of their useful life to avoid service interruptions caused by vehicle failures and costly repairs. The SFMTA is also increasing investment in modern transit facilities to professionally maintain the modern fleet. The SFMTA has prioritized adding more vehicles to the fleet to alleviate overcrowding on busy routes and enable the transit system to carry more passengers as the city grows. These initiatives all contribute to SFMTA's long-term goals of increasing Muni service on key routes to meet growing demand and eliminating delays caused by outdated vehicles and infrastructure.

CURRENT SFMTA REVENUE VEHICLE FLEET INVENTORY

The SFMTA operates the oldest and largest transit system in the San Francisco Bay Area, accounting for close to 45 percent of all transit trips in the region each day. In addition, it is one of the top ten transit systems in the nation based on boardings, carrying more than 230 million passengers annually. The agency's transit fleet is among the most diverse in the world and features the landmarked cable cars, historic streetcars, modern light rail vehicles, diesel-hybrid motor coaches, diesel motor coaches, and electric trolley coaches. The tables on the following pages inventory the Muni transit fleet.

SFMTA REVENUE FLEET PLANNING FOR REPLACEMENT AND EXPANSION

The 2014 SFMTA Transit Fleet Management Plan (TFMP) maps out a systematic approach to planning for the replacement and expansion of the SFMTA's fleet of transit vehicles through 2040. The San Francisco County



New Muni Metro Light Rail Vehicle that arrived in early 2017

Transportation Authority's (SFCTA) travel demand forecast estimates that the SFMTA will need to carry over one million daily transit boardings by 2040, an increase of more than 40 percent than the approximately 700,000 carried today. Much of this growth in ridership occurs along planned routes serving major developments and in the eastern portion of the city. Although many of these projects were included in the previous Transit Fleet Management Plan to varying degrees, the magnitude and timing of these changes in land use, population, and employment have been further refined. The TFMP translates this increase in transit ridership into a service plan and associated vehicle demand projection.

In addition to the ridership projections, the TFMP also outlines the changes to the fleet and additional vehicles needed to operate the expected service increases for the Muni Forward programs in early 2015 and the opening of Central Subway in 2019. Identifying and scheduling the procurement of these vehicles has allowed the SFMTA to spread procurements more evenly to ensure major maintenance investments are not needed all at the same time. Additionally, the detailed fleet planning in the TFMP has made the procurement process more efficient by allowing the agency to partner with agencies on procurements where possible to reduce unit costs and create a shared demand for future parts. Lastly,

the long range review of fleet needs has informed the long-term storage and maintenance facility's needs and positioned the agency to develop a detailed five-year CIP to jump-start the implementation of the fleet and facilities programs.

Per MTC policy, the SFMTA plans procurements on a calendar year cycle. Funding for the replacement and expansion vehicles detailed on the following pages are programmed by the SFMTA during their standard fiscal year.

Near-term Vehicle Replacement

As Muni service vehicles reach the end of their useful life and are retired, the SFMTA will need to replace these vehicles in order to adequately provide transit service to the city. By mid-2019 the SFMTA will replace the entire rubber tire fleet, at which point the average age should be approximately 3.28 years.

Replacement of the 32-ft, 40-ft, and 60-ft Motor Coaches: Over the next five years, the motor coach fleet will be replaced to phase out SFMTA's fleet of diesel motor coaches that will have reached retirement age. The SFMTA will utilize a multi-year contract to replace 124 60' motor coaches and 261 40' motor coaches. SFMTA's current fleet of motor coaches will have reached the end of their Federal Transit Administration (FTA) lifespan and will be eligible for retirement over the next five years, making this replacement critical to the continuation of transit operations.

Replacement of the 40-ft and 60-ft Trolley Coaches: As part of a multi-year joint procurement contract with King County Metro, the SFMTA will replace 93 60' trolley coaches and 175 40' trolley coaches in its fleet. These coaches will have reached the end of their Federal Transit Administration (FTA) lifespan and will be eligible for replacement. The contract will also allow for purchase of at least 12 expansion 60' coaches, which will be offset by decreasing the number of 40' coaches.

Near-term Vehicle Expansion

The fleet is also projected to expand in order to serve the expanded light rail line and the service increases proposed under the Muni Forward initiative to meet growing demand.

Expansion of the Light Rail Fleet: The SFMTA will expand its light rail fleet by 64 vehicles in order to serve the future Central Subway route and growing demand on existing rail lines. The new 1.7-mile extension of Muni's T Third Line will provide direct connections to major retail, sporting and cultural venues while efficiently transporting people to jobs, educational opportunities and other amenities throughout the city.

Expansion of the 60-ft Motor Coach Fleet: The SFMTA will also purchase an additional 44 60' articulated buses over the next year. Articulated 60' buses are a cost-effective and efficient method of meeting ridership demands, as they have 1.5 times the capacity of standard 40' buses while still only needing one driver and one vehicle. The up-front investment in new 60' motor coaches also carries a long-term benefit of making SFMTA eligible for a greater allotment of federal funding to replace buses in the future.

Revenue Vehicle Rehabilitation

In addition to the projected need for replacement and expansion vehicles based on the accepted lifecycle of the revenue vehicles, the SFMTA has also established a program by which its fleet will undergo extensive rehabilitation/retrofits in order to improve their performance. All types of vehicles will be rehabilitated on a rolling basis, with those vehicles in a worse state of repair prioritized.

Establishment of Vehicle Overhaul Program: This project will conduct mid-life overhauls on SFMTA's transit

vehicles as a vital part of keeping the transit fleet in a state of good repair. Traditionally SFMTA has not had funds for mid-life overhauls despite high ridership, challenging terrain, and long duty cycles, resulting in more frequent breakdowns, costly vehicle repairs and disruption of transit service. In the recent CIP, however, the SFMTA has set aside a funding reserve for mid-life overhauls for all vehicle types to help improve service reliability.

Light Rail Vehicle (LRV) Overhauls: The SFMTA operates a fleet of 149 light rail vehicles (LRVs), each of which is equipped with three trucks--two motor trucks and one trailer truck--that serve as suspension systems that support vehicle loads and provide a comfortable ride for passengers. Maintenance data show that rehabilitation of the light rail vehicle trucks will significantly improve vehicle reliability, help to eliminate breakdowns, and prevent service interruptions and costly repairs.

Cable Car Renovation: The SFMTA plans to fund the phased rehabilitation of Muni's cable car fleet, enhancing cable car vehicles and the system's reliability and productivity. It is estimated that the life of a cable car is approximately 60-70 years; a major rehab will extend the life of a cable car by about 30-35 years.

Rehabilitate Historic Streetcars: The historic streetcars used on the F Market/Wharves route are electric rail vehicles from the U.S. and around the world. Due to its historic nature, the streetcar fleet is not replaced on a regular schedule, making a program of regular rehabilitation critical to the long-term operation of the fleet. Over the next five years, the SFMTA will continue to rehabilitate the historic fleet to like-new condition, including upgrading electrical and mechanical systems, performing body work, and ensuring systems meet CPUC and ADA requirements. On average, about four cars per year are overhauled.

Table 28. FY 2017 SFMTA Transit Fleet Inventory

MANUFACTURER (YEAR IN SERVICE)	ID #	PERSON CAPACITY	WHEELCHAIR CAPACITY	MODE OF POWER	RETIRE YEAR
32-foot motor coach (30)					
Orion (2007)	8501-8530	45	2	LF Hybrid	2018
40-foot motor coach (323)					
Neoplan (2002)	8101-8159	63	2	Diesel	2016
Neoplan (2003)	8305-8371	63	2	Diesel	2017
Neoplan (2002) - overhauled	8160-8235, 8301-8304	63	2	Diesel	2017
Orion (2007)	8401-8456	63	2	LF Hybrid	2018-2019
New Flyer (2013)	8601-8662	63	2	LF Hybrid	2026
New Flyer (2014)	8701-8750	63	2	LF Hybrid	2025
New Flyer (2016-17)	8801-8901	56	2	LF Hybrid	2028
60-foot articulated motor coach (124)					
Neoplan (2002)	6200-6225	94	2	Diesel	2015-2016
Neoplan (2003)	6226-6299, 6401-6424	94	2	Diesel	2017
New Flyer (2015)	6700-6730	48	3	LF Hybrid	2027
New Flyer (2016)	6500-6554, 6560-6628	79	3	LF Hybrid	2028
40-foot trolley coach (240)					
ETI (2001)	5401-5640 ¹	63	2	Electric	2016-2019
ETI (2002)	5401-5640 ¹	63	2	Electric	2016-2019
ETI (2003)	5401-5640 ¹	63	2	Electric	2016-2019
ETI (2004)	5401-5640 ¹	63	2	Electric	2016-2019
60-foot articulated trolley coach (93)					
New Flyer (2015)	7201-7211	48	2	Electric	2027
New Flyer (2016)	7212-7260	79	2	Electric	2028
Light rail vehicles (149)					
Breda (1997)	1400-1424	119	4	Electric	2021
Breda (1998)	1425-1451	119	4	Electric	2022
Breda (1999)	1452-1475	119	4	Electric	2023
Breda (2000)	1476-1481	119	4	Electric	2024
Breda (2001)	1482-1507	119	4	Electric	2025
Breda (2002)	1509-1534	119	4	Electric	2026
Breda (2003)	1535-1550	119	4	Electric	2027
Cable Car (40)					
Hyde and Mason cars	n/a	63	Varies	Electric	n/a ²
California cars	n/a	63	n/a	Electric	n/a ²

1. Coach identification numbers reflect a multi-year vehicle procurement.

2. Due to the nature of the historic vehicles, they are not retired. Instead, these vehicles are rehabilitated to a like-new condition as they age.

Table 29. SFMTA Historic Streetcar Fleet Inventory, as of December 2016

CAR NUMBER	ORIGINAL CITY/TRANSIT COMPANY (YEAR BUILT)	CURRENT LIVERY	OPERATIONAL STATUS	PASSENGER CAPACITY
San Francisco Historic Streetcars				
1	San Francisco Municipal Railway (1912)	San Francisco Municipal Railway	Operational	48 seats
130	San Francisco Municipal Railway (1914)	World War II - era blue and gold livery	Operational	50 seats
162	San Francisco Municipal Railway (1914)	San Francisco Municipal Railway	Out of Service	50 seats
578	Market Street Railway Company (1896)	Market Street Railway Company	Operational	26 seats
798	Market Street Railway Company (1924)	Market Street Railway Company	Undergoing Restoration	50 seats
C-1	Muni Motor Flat No. C-1 (1916)	San Francisco Municipal Railway	Operational; performs maintenance/construction	Does not carry passengers
Unique Historic Streetcars				
106	Moscow/Orel, Russia (1912)	n/a	Awaiting Restoration	n/a
151	Osaka, Japan	n/a	Non-serviceable	n/a
189	Porto, Portugal (1929)	Porto, Portugal	Undergoing Restoration	23 seats
228	Blackpool Tramways, England (1934)	Blackpool, England	Operational	44 seats
233	Blackpool Tramways, England (1934)	Blackpool, England	Completing renovation	44 seats
351	Johnstown Traction Company, Pennsylvania (1926)	Johnstown, Pennsylvania	Awaiting Restoration	44 seats
496	Melbourne & Metropolitan Tramways Board, W2 Class (1928)	City of Melbourne, Australia	Operational	52 seats
586	Melbourne & Metropolitan Tramways Board, W2 Class (1929)	n/a	Non-serviceable	n/a
578-j	Kobe City Railways, Kobe, Japan (1927)	Kobe & Hiroshima, Japan	Undergoing Restoration	36 seats
737	Brussels, Belgium (1952)	Zurich, Switzerland	Operational	35 seats
913	New Orleans Public Service, Inc.(1923)	n/a	Awaiting Restoration	n/a
916	Melbourne & Metropolitan Tramways Board, SW6 Class (1946)	City of Melbourne, Australia	Undergoing Restoration	52 seats
952	New Orleans Public Service, Inc. (1923)	New Orleans, Louisiana	Operational	54 seats
3557	Hamburger Hochbahn Aktiengesellschaft (1954)	Hamburg, Germany	Awaiting Restoration	31 seats
Peter Witt Class – the “Milan Cars”				
1807, 1811, 1814, 1815, 1818, 1834, 1856, 1859, 1888, 1893, 1895	Milan, Italy (1928)	Original 1920s Milan yellow and white livery (2); 1930s-1970s Milan two-tone green livery (3); Current orange Milan livery (6)	Operational (7); Under Repair (2); Undergoing restoration (1); Out of Service (1)	n/a
Presidents’ Conference Committee (PCC) Streetcars				
1006 – 1011, 1014, 1015	San Francisco Municipal Railway (1948)	San Francisco Municipal Railway (1950s); Philadelphia Suburban Transportation Co.; San Francisco Municipal Railway “Wings;” Dallas Railway & Terminal Company; San Francisco Municipal Railway “Magic Carpets;” Market Street Railway Company; San Francisco Municipal Railway (1950s); Illinois Terminal Railroad	“Big Ten” Class: Operational (7); Permanently Retired (1)	60 seats
1023, 1026, 1027, 1028, 1031, 1033, 1034, 1038, 1039	San Francisco Municipal Railway (1951-52)	n/a	“Baby Ten” Class: In Storage; retired 1982 (9)	n/a
1040	San Francisco Municipal Railway (1952)	San Francisco Municipal Railway (1950s)	“Baby Ten” Class: Under Repair (1)	58 seats
1050 - 1063	Philadelphia Transportation Company (1946-1948)	San Francisco Municipal Railway (1950s); San Francisco Municipal Railway (1960s); Los Angeles Railway; Brooklyn, New York; Philadelphia, Pennsylvania (2); Kansas City, Missouri-Kansas; Cincinnati, Ohio; Chicago, Illinois; Boston Elevated Railway; Philadelphia Rapid Transit Company; Pacific Electric; Louisville, Kentucky; Baltimore, Maryland	1050 Class: Operational (10); Under Restoration (2); Awaiting Restoration (1); Permanently Retired (1)	47 seats
1070 - 1080	Twin City Rapid Transit Company (1946-1947)	Newark, New Jersey; Minneapolis-St. Paul, Minnesota; Mexico City; El Paso, Texas & Juarez, Mexico; Toronto, Canada; Cleveland, Ohio; Washington, D.C.; Birmingham, Alabama; San Diego, California; Detroit, Michigan; Los Angeles Transit Lines	1070 Class: Operational (11)	50 seats
1108, 1103, 1106, 1125, 1130, 1139, 1140, 1158, 1160, 1168, 1704	St. Louis Public Service Company (1946)	San Francisco Municipal Railway; vehicle 1704 is in St. Louis livery	1100 Class: In Storage; retired 1982 (11)	n/a
2133, 2147	SEPTA-Philadelphia	n/a	In Storage	n/a
4008, 4009	Pittsburgh	n/a	In Storage	n/a

Note: Due to the nature of the historic vehicles, they are not retired. Instead, these vehicles are rehabilitated to a like-new condition as they age.

Table 30. SFMTA Fleet Replacement & Expansion through 2030, 60-foot Motor Coach in fixed route service

	COACH NUMBER	MANUFACTURER	YEAR IN SERVICE	MODE OF POWER	ORIGINAL QTY.	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
EXISTING FLEET	6200-6225	Neoplan	2002	Diesel	26	10														
	6226-6299, 6401-6424	Neoplan	2003	Diesel	98	44														
	6500-6547	New Flyer	2015	LF Hybrid		48	48	48	48	48	48	48	48	48	48					
	6548-6585, 6700-6730	New Flyer	2016	LF Hybrid		79	79	79	79	79	79	79	79	79	79					
PLANNED PROCUREMENT		New Flyer	2017	LF Hybrid			76	76	76	76	76	76	76	76	76	76	76			
		New Flyer	2018	LF Hybrid				21	21	21	21	21	21	21	21	21	21	21	21	21
		TBD	2023	LF Hybrid								25	25	25	25	25	25	25	25	25
		TBD	2024	LF Hybrid									20	20	20	20	20	20	20	20
		TBD	2026	LF Hybrid											48	48	48	48	48	48
		TBD	2028	LF Hybrid													79	79	79	79
		TBD	2029	LF Hybrid														76	76	76
		TBD	2029	LF Hybrid															35	35
		TBD	2030	LF Hybrid																20
		TBD	2030	LF Hybrid																
FLEET STATISTICS	Total Vehicles at Start of Fiscal Year					168	181	203	224	224	224	224	224	249	269	269	269	269	269	304
	Vehicles Replaced					76										48	79	76		21
	Expansion/Contraction					3	76	21					25	20					35	20
	Total Fleet					181	203	224	224	224	224	224	249	269	269	269	269	269	304	324
	Average Vehicle Age (Years)					5.2	1.9	2.7	3.7	4.7	5.7	6.7	7.0	7.5	8.5	7.5	5.3	3.2	3.8	3.8

Table 31. SFMTA Spare Ratio Adjustment Program through 2030, 60-foot Motor Coach in fixed route service

60 ft Motor Coach	Winter 2017	Fall 2018	Fall 2019	Fall 2020	2025	2030
Peak vehicle demand	124	151	172	187	225	271
Add'l Peak Demand (motorization)	21	36	15			
Maintenance demand (20%)	29	37	37	37	45	54
Midlife Overhaul/Campaigns						
Total Vehicle Demand	174	224	224	224	270	325
Total Fleet Size	181	224	224	224	269	324
Spare Ratio	25%	20%	20%	20%	20%	20%

Table 32. SFMTA Fleet Replacement & Expansion through 2030, 40-foot Motor Coach in fixed route service

	COACH NUMBER	MANUFACTURER	YEAR IN SERVICE	MODE OF POWER	ORIGINAL QTY.	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
EXISTING FLEET	8101-8159	Neoplan	2002	Diesel	59	48														
	8305-8371	Neoplan	2003	Diesel	67	63	63													
	8160-8235, 8301-8304	Neoplan (over-hauled)	2002	Diesel	80	64	29													
	8401-8456	Orion	2007	LF Hybrid	56	56	56	12												
	8601-8662, 8701-8730	New Flyer	2013	LF Hybrid	92	92	92	92	92	92	92	92	12	12						
	8731-8750	New Flyer	2014	LF Hybrid		20	20	20	20	20	20	20	20	20						
	8800-8855	New Flyer	2016	LF Hybrid		56	56	56	56	56	56	56	56	56	56	56				
PLANNED PROCUREMENT		New Flyer	2017	LF Hybrid			76	76	76	76	76	76	76	76	76	76	76	76		
		New Flyer	2018	LF Hybrid				68	68	68	68	68	68	68	68	68	68	68	68	68
		TBD	2019	LF Hybrid				30	30	30	30	30	30	30	30	30	30	30	30	30
		TBD	2020	LF Hybrid					15	15	15	15	15	15	15	15	15	15	15	15
		TBD	2023	LF Hybrid									80	80	80	80	80	80	80	80
		TBD	2024	LF Hybrid										8	8	8	8	8	8	8
		TBD	2025	LF Hybrid											32	32	32	32	32	32
		TBD	2027	LF Hybrid														41	41	41
		TBD	2029	LF Hybrid																91
	TBD	2030	LF Hybrid																	68
FLEET STATISTICS	Total Vehicles at Start of Fiscal Year					373	399	392	324	342	357	357	357	357	365	365	365	350	350	365
	Vehicles Replaced					56	76	68					80		32		56		76	68
	Expansion/Contraction								30	15				8						
	Total Fleet					399	392	324	342	357	357	357	357	365	365	365	350	350	365	365
	Average Vehicle Age (Years)					9.0	7.0	3.7	4.0	4.9	5.9	6.9	5.6	6.5	6.5	7.5	7.1	8.1	6.2	5.0

Table 33. SFMTA Spare Ratio Adjustment Program through 2030, 40-foot Motor Coach in fixed route service

40 ft Motor Coach	Winter 2017	Fall 2018	Fall 2019	Fall 2020	2025	2030
Peak vehicle demand	292	262	276	285	292	291
Add'l Peak Demand (motorization)	21	8				
Maintenance demand (20%)	63	54	55	57	58	58
Midlife Overhaul/Campaigns			10	15	15	15
Total Vehicle Demand	372	324	341	357	365	364
Total Fleet Size	372	324	342	357	365	365
Spare Ratio	19%	20%	20%	19%	19%	19%

Table 34. SFMTA Fleet Replacement & Expansion through 2030, 32-foot Motor Coach in fixed route service

	COACH NUMBER	MANUFACTURER	YEAR IN SERVICE	MODE OF POWER	ORIGINAL QTY.	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030		
EXISTING FLEET	8501-8530	Orion	2007	LF Hybrid	30	30	30	30														
PLANNED PROCUREMENT		TBD	2019	LF Hybrid					30	30	30	30	30	30	30	30	30	30	30	30		
		TBD	2031	LF Hybrid																		
FLEET STATISTICS	Total Vehicles at Start of Fiscal Year					30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	
	Vehicles Replaced								30 ¹													
	Expansion/Contraction																					
	Total Fleet					30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
	Average Vehicle Age (Years)					10.0	11.0	12.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0		

1. 10 vehicles traded for preventative maintenance funds in FY 2006. Vehicles eligible to return to fleet in FY 2019.

Table 35. SFMTA Spare Ratio Adjustment Program through 2030, 32-foot Motor Coach in fixed route service

32 ft Motor Coach	Winter 2017	Fall 2018	Fall 2019	Fall 2020	2025	2030
Peak vehicle demand	21	21	23	23	23	23
Add'l Peak Demand (motorization)						
Maintenance demand (30%)	4	4	5	5	5	5
Midlife Overhaul/Campaigns		2				
Total Vehicle Demand	21	23	23	28	28	28
Total Fleet Size	30	30	30	30	30	30
Spare Ratio	43%	43%	30%	30%	30%	30%

Table 36. SFMTA Fleet Replacement & Expansion through 2030, 60-foot Trolley Coach in fixed route service

	COACH NUMBER	MANUFACTURER	YEAR IN SERVICE	MODE OF POWER	ORIGINAL QTY.	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030		
EXISTING FLEET	7201-7211	New Flyer	2015	LF Trolley		12	12	12	12	12	12	12	12	12	12	12	12	12	12			
	7212-7260	New Flyer	2016	LF Trolley		48	48	48	48	48	48	48	48	48	48	48	48	48	48	48		
PLANNED PROCUREMENT	7261-7293	New Flyer	2017	LF Trolley			20	20	20	20	20	20	20	20	20	20	20	20	20	20		
		New Flyer	2018	LF Trolley				13	13	13	13	13	13	13	13	13	13	13	13	13		
		TBD	2030	TBD																12		
		TBD	2031	TBD																		
FLEET STATISTICS	Total Vehicles at Start of Fiscal Year					45	60	80	93	93	93	93	93	93	93	93	93	93	93	93	93	
	Vehicles Replaced					48	20	13													12	
	Expansion/Contraction																					
	Total Fleet					60	80	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93
	Average Vehicle Age (Years)					1.2	1.9	2.6	3.6	4.6	5.6	6.6	7.6	8.6	9.6	10.6	11.6	12.6	13.6	12.7		

Table 37. SFMTA Spare Ratio Adjustment Program through 2030, 60-foot Trolley Coach in fixed route service

60 ft Trolley Coach	Winter 2017	Fall 2018	Fall 2019	Fall 2020	2025	2030
Peak vehicle demand	45	72	77	77	77	77
Add'l Peak Demand (motorization)						
Maintenance demand (20%)	9	14	15	15	15	15
Midlife Overhaul/Campaigns						
Total Vehicle Demand	54	86	92	92	92	92
Total Fleet Size	60	93	93	93	93	93
Spare Ratio	33%	29%	21%	21%	21%	21%

Table 38. SFMTA Fleet Replacement & Expansion through 2030, 40-foot Trolley Coach in fixed route service

	COACH NUMBER	MANUFACTURER	YEAR IN SERVICE	MODE OF POWER	ORIGINAL QTY.	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
EXISTING FLEET	5401-5481 ¹	ETI	2001	Trolley	21	18														
	5401-5640 ¹	ETI	2002	Trolley	108	93	87													
	5482-5640 ¹	ETI	2003	Trolley	94	94	94	70												
	5482-5640 ¹	ETI	2004	Trolley	17	17	17	17												
PLANNED PROCUREMENT		TBD	2017	LFTrolley			2	2	2	2	2	2	2	2	2	2	2	2	2	2
		TBD	2018	LF Trolley				104	104	104	104	104	104	104	104	104	104	104	104	104
		TBD	2019	LF Trolley				79	79	79	79	79	79	79	79	79	79	79	79	79
FLEET STATISTICS	Total Vehicles at Start of Fiscal Year					239	222	200	193	185	185	185	185	185	185	185	185	185	185	185
	Vehicles Replaced						2	104	79											
	Expansion/Contraction																			
	Total Fleet					222	200	193	185	185	185	185	185	185	185	185	185	185	185	185
	Average Vehicle Age (Years)					14.5	15.2	7.7	1.6	2.6	3.6	4.6	5.6	6.6	7.6	8.6	9.6	10.6	11.6	12.6

1. Coach identification numbers reflect a multi-year vehicle procurement

Table 39. SFMTA Spare Ratio Adjustment Program through 2030, 40-foot Trolley Coach in fixed route service

40 ft Trolley Coach	Winter 2017	Fall 2018	Summer 2019	Fall 2020	2025	2030
Peak vehicle demand	146	135	153	153	153	153
Add'l Peak Demand (motorization)						
Maintenance demand (20%)	29	27	31	31	31	31
Midlife Overhaul/Campaigns						
Total Vehicle Demand	175	162	184	184	184	184
Total Fleet Size	202	185	185	185	185	185
Spare Ratio	38%	37%	21%	21%	21%	21%

Table 40. SFMTA Fleet Replacement & Expansion through 2030, Light Rail Vehicles in fixed route service

	COACH NUMBER	MANUFACTURER	YEAR IN SERVICE	MODE OF POWER	ORIGINAL QTY.	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
EXISTING FLEET	1400-1424	Breda	1997	LRV 2	25	25	25	25	25	25	15										
	1425-1451	Breda	1998	LRV 2	27	25	25	25	25	25	25	16									
	1452-1475	Breda	1999	LRV 2	24	24	24	24	24	24	24	24	16								
	1476-1481	Breda	2000	LRV 2	6	6	6	6	6	6	6	6	6								
	1482-1507	Breda	2001	LRV 3	27	27	27	27	27	27	27	27	27	25	1						
	1509-1534	Breda	2002	LRV 3	26	26	26	26	26	26	26	26	26	26	26	3					
	1535-1550	Breda	2003	LRV 3	16	16	16	16	16	16	16	16	16	16	16	16					
PLANNED PROCUREMENT	Siemens	2017	LRV 4				12	12	12	12	12	12	12	12	12	12	12	12	12	12	
	Siemens	2018	LRV 4					24	24	24	24	24	24	24	24	24	24	24	24	24	
	Siemens	2019	LRV 4					24	24	24	24	24	24	24	24	24	24	24	24	24	
	Siemens	2020	LRV 4						4	4	4	4	4	4	4	4	4	4	4	4	
	Siemens	2021	LRV 4							12	12	12	12	12	12	12	12	12	12	12	
	Siemens	2022	LRV 4									24	24	24	24	24	24	24	24	24	
	Siemens	2023	LRV 4										24	24	24	24	24	24	24	24	
	Siemens	2024	LRV 4											24	24	24	24	24	24	24	
	Siemens	2025	LRV 4												24	24	24	24	24	24	
	Siemens	2026	LRV 4													24	24	24	24	24	
	Siemens	2027	LRV 4														24	24	24	24	
Siemens	2028	LRV 4															24	24	24		
Siemens	2029	LRV 4																16	16		
FLEET STATISTICS	Total Vehicles at Start of Fiscal Year					147	149	161	185	209	213	215	215	215	215	215	215	220	244	260	
	Vehicles Replaced										12	24	24	24	24	24	19				
	Expansion/Contraction						+12	+24	+24	+4							+5	+24	+16		
	Total Fleet ¹					149	161	185	209	213	215	215	215	215	215	215	215	220	244	260	260
	Peak Service Demand					113	113	113	160	177	179	179	179	179	179	187	187	187	195	195	195
	Maintenance Spares					36	48	72	49	36	36	36	36	36	36	28	28	33	49	65	65
	Spare Ratio					32%	42%	64%	31%	20%	20%	20%	20%	20%	20%	15%	15%	18%	25%	33%	33%
	Average Vehicle Age (Years)					17.1	16.9	15.7	14.9	15.6	15.3	13.6	11.8	10.1	8.4	6.7	5.5	6.0	6.6	7.6	

1.Total LRV fleet adjusted for major repairs. Major repairs return to service by 2016. Two vehicles will not return to service until replaced in 2021.

Table 41. Motor Coaches Scheduled for Rehabilitation

COACH NO.	MANUFACTURER	LENGTH OF VEHICLE	YEAR IN SERVICE	MODE OF POWER	YEAR OF PLANNED REHABILITATION	ESTIMATED COST
8401 - 8456	Orion	40 ft.	2006	Hybrid Diesel	2012	\$382,000/bus (in 2014 dollars)
8501 - 8530	Orion	30 ft.	2007	Hybrid Diesel	2013	\$382,000/bus (in 2014 dollars)
8601 - 8662	New Flyer	40 ft.	2013	Hybrid Diesel	2019	\$371,100/bus (2017 dollars)
8701 - 8750	New Flyer	40 ft.	2014	Hybrid Diesel	2020	\$371,100/bus (2017 dollars)
	New Flyer	60 ft.	2015	Hybrid Diesel	2021	\$539,000/bus (2017 dollars)

REVENUE FLEET VEHICLE REPLACEMENT AND EXPANSION FUNDING

The SFMTA regularly forecasts funding that can be reasonably anticipated in the near term as part of the Capital Improvement Program. These sources have met the regional needs for vehicle replacement and allow the SFMTA to assume all vehicle replacements will be funded through these sources in the future:

Regionally-programmed funds: MTC policies prioritize vehicle replacement as the highest priority for a number of federal funding sources it allocates, placing a lower priority on vehicle expansion. The SFMTA assumes additional funding sources will need to be identified for vehicle expansion.

Local funding: Proposition K sales tax revenues administered by the SFCTA have traditionally provided the primary source of local match to federal funds.

Potential New Sources of Funding: Given the extent of the needs identified in the TFMP, the SFMTA is working with its partners to find new funding for fleet replacement and expansion. The Mayor's Transportation Task Force identified approximately

\$270 million of potential funding for vehicle investments through general obligation bonds, sales taxes, and vehicle license fees. Also, San Francisco voters passed Proposition B in November 2014 that requires the City to adjust funding for transportation each year based on population growth. With these funds, the City will purchase Muni vehicles and complete street safety and paving projects. In the future, additional new revenue sources will be pursued to ensure a stable, long-term commitment to improving and maintaining the Muni fleet and city's transportation network.

The MTC Core Capacity Challenge Grant Program has also identified approximately \$400 million of potential funding for vehicle investments through sources such as FTA formula funds, FTA New Starts Core Capacity funds, and Cap and Trade Revenues. The SFMTA is using some of these sources to procure expansion light rail vehicles. Additionally, the SFMTA will continue to investigate funding opportunities for vehicle expansion and adjust vehicle procurement plans as more information becomes available.

DEMAND-RESPONSIVE PARATRANSIT VEHICLE FLEET PLANNING

The SFMTA plans to replace 27 Class B paratransit vans that will have reached the end of their useful life in 2017. A Class B or Type II vehicle is a 22' cutaway van that holds a minimum of 12 passengers and two wheelchair positions. These vehicles provide critical service for customers with limited mobility. The agency will also replace five Class D paratransit minivans that will have reached the end of their useful life in 2018. A Class D vehicle is a low-floor minivan that holds two passengers and one wheelchair user. These vehicles provide critical service for customers with limited mobility. The agency will replace another 35 Class B vehicles in 2019.

In addition to replacing paratransit vehicles at the end of their useful lives, SFMTA will purchase an additional 13 Class B vehicles and an additional 32 Class D minivans over the next few years. These expansion vehicles will allow the agency to retire vehicles that have been kept in service beyond their FTA-defined useful lives in order to meet service demand.

All of the vehicles listed in the following table are in service. The SFMTA currently does not have any spares in the paratransit fleet. As the new vehicles are delivered, the SFMTA plans to shift all those vehicles that are retired into the reserve fleet for the short term. The paratransit fleet vehicles will then be removed from service entirely on a rolling basis, as the maintenance team determines which vehicles can be kept in reserve and which should not be used for service at all.

Table 42. Paratransit Vehicle Fleet Inventory

MANUFACTURER/VENDER (vehicle year)	NUMBER OF VEHICLES	PERSON CAPACITY	WHEELCHAIR CAPACITY	MODE OF POWER
CLASS B				
El Dorado (2006)	20	12	2	Gasoline
Bus West (2008)	35	12	2	Diesel
El Dorado (2012)	1	12	2	Gas/ Hybrid
Elkhart (2012)	26	12	2	Gasoline
Glaval (2014)	35	12	2	Gasoline
CLASS D				
Braun (2014)	5	2	1	Gasoline

Table 43. Non-Revenue Vehicle Fleet Inventory, as of June 2016

DIVISION SUBFLEET	NO. OF VEHICLES	MODEL YEAR RANGE	VEHICLE TYPE(S)	MODE OF POWER
Agency Administrative Functions (Communications, Information Technology, Human Resources, etc.)	29	1988-2016	Car, Minivan, Cargo Van, Pick-up	Hybrid, Gasoline
Building and Grounds Vehicles	5	1986-2010	SUV, Van, Pick-up, Cargo Van, Super- Duty Truck	Hybrid, Gasoline
Capital Projects & Construction Division Vehicles	15	1999-2015	Van, Car, Pick-ups, Cargo Van, Super- Duty Truck	Hybrid, Gasoline
Custodial Vehicles	11	1987-2010	Van, Pick-up	Gasoline
Parking Control Officer Vehicles	271	1996-2013	Cart	Gasoline, CNG
Revenue & Collections Vehicles	17	1986-2013	Pick-up, Minivan, Cargo Van	Hybrid, Gasoline
Security, Investigations, Enforcement, and Proof-of-Payment Vehicles	67	1987-2016	Car, SUV, Pick-up, Van	Hybrid, Gasoline
SFMTA SFPD K-9 Unit Vehicles	6	1996-2016	Car, SUV	Gasoline
Sustainable Streets Division Pool Vehicles	14	1998-2010	Car, Cargo Van	Gasoline
Sustainable Streets Shops Vehicles	133	1987-2014	SUV, Van, Pick-up, Super-Duty Truck	Hybrid, Gasoline
System Safety Vehicles	7	2000-2012	Car, SUV, Cargo Van	Hybrid, Gasoline
Taxi Services Investigations Vehicles	2	2000-2007	Car	Gasoline
Transit Operations Pool Light-Duty Vehicles	68	1982-2010	Car, SUV, Van, Minivan, Pick-up	Hybrid, Gasoline
Transit Operations Division Overhead Lines & Track Maintenance Vehicles	67	1981-2015	Super-Duty Truck, Freight	Gasoline, Biodiesel
Transit Operations Heavy-Duty Facilities and Maintenance Vehicles	127	1981-2013	Sweeper, Cargo Van, Super-Duty Truck, Tanker Truck, Freight	Gasoline, Biodiesel
Transit Street Operations Vehicles	38	1992-2013	Car, SUV, Pick-up, Super-Duty Track	Gasoline, Biodiesel
TOTAL	877			

NON-REVENUE VEHICLE FLEET PLANNING

The SFMTA owns and maintains just under 900 transit service critical and SFMTA operations support vehicles. The largest subfleets support the work of the Sustainable Streets Division's Enforcement units, including vehicles for the parking control officers and the security response teams, and Transit Operations that requires light- and heavy-duty vehicles to respond to incidents and transport equipment around the city. Other vehicles are used to transport materials between operating divisions and assist the planning, engineering, and construction of SFMTA projects around the city.

Per city policy, all city departments must retire vehicles older than 12 years old. The SFMTA is currently developing a strategy that will improve the management of the non-revenue fleet to accommodate its needs while meeting the city's reduction and retirement goals.

San Francisco Healthy Air and Clean Transportation Ordinance

In 2010, San Francisco voters added the Healthy Air and Clean Transportation Ordinance (HACTO) to the city's Environment Code. It was intended to assist the city in achieving its air pollution and greenhouse gas reduction goals by mandating that all city employees and departments use sustainable transportation modes for trips made for work (such as public transit, walking, ridesharing, or biking) to minimize single-occupancy vehicle transportation as much as possible and, when it is not, to use green vehicles. To implement this ordinance, each city department was required to develop a Transit First plan outlining how it would implement the various sustainable options to reduce vehicle usage and a Transit First report on implementation. Waivers were granted for vehicles

that were required to perform job-critical tasks. The SFMTA received waivers for 422 of the agency's 559 vehicles subject to HACTO in 2010. Departments that manage their own fleet of vehicles, like the SFMTA, were required to reduce the remaining light duty (non-revenue and non-service critical vehicles) fleet size by 20 percent from the 2010 baseline. The SFMTA did so in FY 2015.

Also in FY 2015, the SFMTA installed Global Positioning System (GPS) devices in all non-revenue vehicles which allow the SFMTA to track and monitor vehicle usage for safety, efficiency and enhanced maintenance. The Board of Supervisors passed legislation in FY 2016 that requires GPS in non-revenue vehicles. The Board of Supervisors also amended the HACTO legislation which transferred oversight from SF Environment to the City's Administrators Office to implement vehicle reduction requirements that are based on usage through GPS data.

The next version of HACTO for FY 2018 focuses on the retirement of underutilized light duty vehicles (3,000 miles per year or less) in each city department. As with the original HACTO, waivers are granted for special cases (e.g. SFMTA paint shop vans do not accumulate high mileage yet are necessary for the job). The internal departmental redeployment of underutilized vehicles is a secondary strategy (e.g. assigning the cleanest vehicles to the highest mileage tasks wherever possible). The SFMTA has already been optimizing fleet deployment in this way through the use of non-revenue vehicle GPS statistics.

Non-Revenue Vehicle Fleet Funding Sources

The SFMTA non-revenue fleet, both the light-duty and heavy-duty vehicles, are funded through the pooled locally-generated operating funds that come from a variety of sources, including the SF General Fund, fares/fees/fines, parking meters, etc.

FACILITIES

Efficient and well-functioning maintenance, fueling, storage, and staging facilities are vital to ensuring reliable transit service and that SFMTA's fleet is in a state of good repair. Informed by the Vision Report and Facility Framework, the Facilities Capital Improvement Program (CIP) supports the modernization of outdated facilities to make them safe, efficient, and able to service modern vehicles. The CIP also assigned projected funding to expand facilities to accommodate fleet growth. It is important to note that, at the time of publication of this Plan, finalization of the Facilities Framework is still underway. The near-term program of projects recommended in the Facilities Framework will be formally incorporated into the FY 2019 - FY 2023 CIP, and further discussed in the next Short Range Transit Plan.

As the SFMTA modernizes and expands its fleet facilities, the agency will incorporate the infrastructure and the space needed for the growing and changing fleet both in terms of vehicle size and vehicle technology. In addition, this next generation of modern bus facilities will be able to store, fuel/charge, and maintain motor, trolley and electric vehicles of 40' and 60' lengths.

FUNDING FACILITIES IMPROVEMENTS

The cost estimates in the CIP include hard costs (construction) and soft costs (e.g., planning, design, construction management, surveying, and testing). The cost estimates are based on industry standards and are applied on a unit or square-foot basis where possible, with an appropriate contingency to account for San Francisco conditions. As the planning and preliminary engineering phases for the individual projects for each facility are initiated, the estimates

will be updated as additional information becomes available.

Although the SFMTA has programmed a significant amount of projected funding in the near term to start the planning, preliminary engineering, design and construction of the following facilities and equipment projects, a substantial amount of funding is still needed to complete the construction of the projects recommended by the Facilities Capital Program. The SFMTA is working closely with its regional, state, and federal partners to develop a funding strategy for this critical capital improvement program.

FUTURE MAJOR NEW AND EXPANDED FACILITIES

The projects summarized in this section are the near-term projects needed to accommodate the existing fleet and the 2017 updated Fleet Plan expansion schedule. These projects take the first steps in the modernization of SFMTA's facilities. More information on the implementation schedule and funding plan for each of these projects is available in the SFMTA FY 2017 - FY 2021 CIP. This document has evolved with the ongoing Facilities Framework since its original adoption, so readers are encouraged to view or request the most recent updates to this CIP.

Additional Bus Storage and Maintenance Yard (Estimated initial investment: \$430 million): Due to vehicle acquisition and fleet expansion projections from the most recent Transit Fleet Management Plan numbers, additional bus storage will be required to adequately store and maintain the expansion fleet. The Facilities Framework has identified two overarching scenarios to accommodate this growth: 1) a new facility, or 2) increasing capacity during rebuild of SFMTA's existing facilities.

Burke (Estimated initial investment: \$39 million): The renovation and reconfiguration of Burke for central Warehouse and Transit Division Overhead Lines Maintenance.

Islais Creek (Estimated initial investment: \$130 million): The new 65,000 square foot motor coach maintenance and operations building including light and heavy maintenance bays, warehouse space, operations and maintenance offices, showers, gilley room, locker rooms and training space. The project is currently under construction with an expected in-service timeline of early 2018.

Muni Metro East (MME) Facility Expansion (Estimated initial investment: \$160 million): This project will construct storage tracks to accommodate the growing Light Rail Fleet for the opening of the Central Subway and planned rail service growth to 2040, with the potential for interim bus storage on the site during rebuild of other facilities before LRV storage capacity is needed.

Yosemite Warehouse Purchase (Estimated Order of Magnitude investment: \$15 million): The SFMTA Sustainable Streets' Paint and Meter Shops are currently occupying this leased facility. The lease is being amended to include a purchase option to acquire the SFMTA portion of the property on or before 2020.

SHORT-TERM AND GENERAL MAINTENANCE FACILITIES PROJECTS

The SFMTA has identified the following list of smaller facilities upgrades that will improve maintenance and operations of the facilities and the transit system as a whole. More information on the implementation

schedule and funding plan for each of these projects is available in the SFMTA FY 2017 - FY 2021 CIP.

- **Operator Convenience Facilities Phases I-III:** \$6 million estimated initial investment
- **Life & Fire Safety Systems at Flynn, Kirkland, Scott, Metro Green, and Potrero:** \$5 million estimated initial investment
- **Lift Upgrades at Flynn, Potrero, and Presidio:** \$12 million estimated initial investment
- **Kirkland Division Underground Storage Tank Replacement:** \$6 million estimated initial investment
- **SFMTA Tow Facility Vehicle Stackers:** \$2 million estimated initial investment
- **Wash Racks at Flynn, Potrero, Presidio, Kirkland, Beach, and Green:** \$3 million estimated initial investment

TOOLS & EQUIPMENT PURCHASES

In addition to the structural changes and reconfiguration of the SFMTA facilities, the following smaller equipment purchases and renovation projects have been included in the five-year Capital Improvement Program. More information on the funding plan for each of these purchases is available in the SFMTA FY 2017 - FY 2021 CIP.

- **Alternator Testers** (Estimated Cost: \$0.5 million): Each SFMTA motor coach yard (Woods, Flynn, Kirkland and Islais Creek) will get a tester.
- **Electric Diagnostic Station** (Estimated Cost: \$6 million): The following yards will get a tester: Flynn, Kirkland, Islais Creek, Woods, Potrero and Presidio.

- **Floor Sweepers & Scrubbers** (Estimated Cost: \$0.7 million): Each of the six transit yards will get one to two sweepers and scrubbers to clean work stalls, floors, and aprons.
- **Fluid Dispensing Reels, Hoses, and Plumbing** (Estimated Cost: \$0.5 million): Each of the six shops and yards will get new reels for the fuel islands and shop stalls.
- **Parts Cleaners** (Estimated Cost: \$1.2 million): All six division motor or trolley coach yards will get a unit or two based on the shop.
- **Pressure Washers** (Estimated Cost: \$0.1 million): Each of the six bus maintenance yards will get a pressure washer.
- **Shop Pusher Tugs** (Estimated Cost: \$0.4 million): Each of the six transit yards will get one tug.
- **Vehicle Vacuum Systems** (Estimated Cost: \$0.8 million): This project will fund the replacement of the vehicle vacuum systems at Woods, Flynn, Kirkland and Potrero Divisions

PARATRANSIT VEHICLE FACILITIES

The SFMTA is working to find a paratransit operating facility, which would accommodate the 87 SFMTA-owned paratransit vans. Ideally this location would accommodate growth of the fleet to 125 vehicles. The vans are currently parked and maintained at various contractors' sites in San Francisco and Brisbane, as the van heights are too high to fit into any of the off-street parking garages currently owned and operated by the SFMTA. Office space for administration and dispatching is also needed. To date, this is still an open issue for the SFMTA and the Paratransit contractors.

OTHER SFMTA CAPITAL PROGRAMS

ACCESSIBILITY

SFMTA strives to make public transportation accessible to every person in San Francisco. This requires planning, designing, and constructing capital projects to enhance the accessibility of the transportation system, such as installing elevators at transit stations or constructing boarding islands and platforms. These improvements benefit a broad spectrum of San Francisco residents and visitors. Families traveling with small children in strollers, for example, can more easily board transit vehicles and stations and those who may be temporarily disabled from an injury will enjoy easier access. Additionally, people with disabilities and those who rely on a wheelchair or other mobility aid require consistent access to the transportation network.

The Accessibility Program is dedicated to projects that go above and beyond Americans with Disabilities Act (ADA) requirements to make most modes and aspects of the transportation system accessible - from buses to streetcars to transit stops. Accessibility improvements are at the core of the SFMTA's Capital Improvement Program and are not limited to the projects listed in this program, but are incorporated into the design of many projects in the other Capital Programs. For example, all the projects in the Transit Optimization and Expansion program have elements that enhance access to the transit system like sidewalk extensions at transit stops and busy intersections. Likewise, the projects in the Transit Fixed Guideway Program like the Sunset Tunnel Rail Replacement include the construction of key stops and ramps to facilitate easier boarding for those of limited mobility. Additionally, many of the projects in the Traffic & Signals program have incorporated the installation of pedestrian countdown and accessible pedestrian signals in the scope of work. In this way, improving transit access for all users is a key element of all SFMTA work.

COMMUNICATIONS AND IT INFRASTRUCTURE

The Communications and Information Technology (IT) Program supports the design and implementation of IT infrastructure to improve the efficiency and ease of use of the transportation system. This includes maintaining the fiber network that provides the internal communication backbone of the Metro system. SFMTA is currently replacing the remaining non-fiber SFMTA facilities with a link to the SFMTA core fiber network. These upgrades will reduce costs, improve bandwidth, and make our communication tools faster and more usable for the public.

The Communications and IT Program also supports investments in new technology to improve the Muni customer experience. Key transit communications projects include:

- **Blue Light Emergency Telephone Replacement:** The existing emergency phone will be upgraded and new phones added throughout the Muni subway. These phones are crucial for contacting emergency services in a crisis, such as a natural disaster or medical emergency.
- **Radio Replacement and CAD/AVL Upgrade:** As part of a system-wide upgrade to Muni communications, SFMTA is upgrading its outdated radio system and introducing a new Computer Aided Dispatch/Automatic Vehicle Location (CAD/AVL) system. The new radio system will improve communications between Muni operators and the Transportation Management Center (TMC), improve how Muni responds to unexpected service disruptions, track vehicles in real time and interface with other on-board systems that depend upon knowledge of vehicle locations.

- **Farebox System:** In FY 2017, the SFMTA will replace 25-year old farebox equipment with a new system which will consist of new fareboxes on all transit vehicles (except cable cars), a secure revenue collection system to transfer cash and coins from fareboxes to SFMTA's Counting Room, a data collection and reporting system and integration with the CAD/AVL system to link farebox transactions with routes and locations. The new farebox system will replace current pre-printed paper tear-off transfers/fare receipts with on-demand real-time printing of transfers/fare receipts.
- **Automatic Passenger Counters:** The SFMTA is installing state-of-the-art Automatic Passenger Counters (APCs) on all new buses, trolley coaches and light rail vehicles in order to track ridership by stop. In addition to improving the accuracy of current ridership counts for service planning purposes, these new APCs will allow the Transportation Management Center (TMC) to identify overcrowding in real time and develop service strategies to improve operations
- **Real-Time Vehicle Arrival Predictions System/ Customer Information System:** SFMTA's new Real-Time Vehicle Arrival Predictions System/ Customer Information System will provide more accurate expected waiting times in a variety of formats to help customers better plan their travel and make use of their time. The SFMTA is exploring the latest technologies to provide additional information on-board vehicles, such as real-time service updates and connecting route arrivals, as well as informational kiosks at stations and other locations.

Other key near term projects include additional safety upgrades and new Clipper Card readers on Muni vehicles.

In coordination with the transit and streets projects, these initiatives all help to make riding Muni easier and more efficient, and help customers to better integrate the transit system into their day-to-day lives.

Asset Management

Funding for the development and implementation of an Enterprise Asset Management System (EAMS) is also in the Communications and IT Capital Program. The EAMS will support the SFMTA's Transportation Asset Management (TAM) Program that defines the agency's approach to maintain the approximately \$13.2 billion of assets in a state of good repair. These assets go beyond the Muni-related transit assets and include walking, bicycling, traffic management and parking infrastructure in San Francisco.

Once fully deployed, the EAMS will integrate the currently disparate asset tracking systems within the agency while providing full visibility of the current and historical state of all active SFMTA assets. This will help better assess the condition of the agency's assets and enable more accurate financial forecasting and planning. The agency's TAM Program will use data from the EAMS to prioritize investments based on asset condition and meet state of good repair targets. Together, the TAM Program and EAMS will help the agency comply with the asset management policy and associated requirements under the 2012 Moving

Ahead for Progress in the 21st Century Act (MAP-21) as well as enable data-driven decisions on managing and reinvesting in the city's transportation network.

The development of the EAMS and the associated software tools started in late 2012 with the development of the conceptual engineering report for the system. In 2014, the SFMTA hired dedicated staff to implement the EAMS and issued a request for proposal for professional services to assist with deploying and configuring the EAMS. The SFMTA has planned for a three year deployment across approximately 45 business units in the agency. Deploying at each business unit will include replacing legacy systems and processes that involve managing assets, work orders, and materials. The table below shows the projected timeline for development and implementation of the EAMS.

PARKING

SFMTA is responsible for maintaining public parking facilities, including both on- and off-street, that serve San Francisco residents, visitors, and businesses. The Parking Program supports the planning, design, rehabilitation, and construction of public parking garages, as well as street infrastructure and facilities related to public parking. This includes ensuring that parking garages are structurally sound, well-ventilated, and can withstand harsh weather and earthquake activity. SFMTA also ensures that parking structures are

accessible and meet the requirements of the Americans with Disabilities Act (ADA).

Some of the near term parking projects include the rehabilitation and equipment upgrades of key parking structures: Civic Center Plaza, Golden Gateway, Japan Center, Moscone Center, Performing Arts Center, Union Square, and neighborhood garages in North Beach and the Mission.

More information on SFMTA parking policies and projects is available on the on the SFMTA website: <http://www.sfmta.com/getting-around/parking>

SECURITY

Developing state-of-the-art emergency security systems is crucial to providing San Francisco with a safe and reliable transportation system. The Security Program funds are used to plan, design, and implement security initiatives in case of a natural disaster, terrorist attack, or other emergency situations. SFMTA also applies for competitive grants to fund this program, such as the federal Transit Security Grant Program which provides funding for projects that protect vital transportation infrastructure against potential terrorist and security threats.

Some of the near term security projects include investments in site-hardening of the Muni subway systems and the installation of threats and vulnerabilities countermeasures to improve the security of the traveling public and the Muni transit operators. The Security Program also covers security and emergency preparedness training for staff and transit operators.

Table 44. Projected Development and Implementation Timeline for the SFMTA Enterprise Asset Management System

Project Phase	Implementation Dates	Assets Affected
Phase 1	2015 to early 2016	Maintenance of Way/Transit Fixed Guideway assets: overhead lines, motive power, track maintenance, cable car machinery; Purchasing; and Materials Management. Completed Units: Buildings and Grounds, Custodial, Underground Storage Tanks
Phase 2	2016 to early 2017	Sustainable Streets assets associated with the Livable Streets subdivision and the Sustainable Streets shops, e.g. parking meters, traffic signs and signals, street striping and paint, SFgo signal timing, etc.
Phase 3	Late 2016 through 2017	Other Transit assets, revenue vehicle fleet for all modes, and vehicle maintenance; SFMTA Real Estate and Facilities; Transportation Management Center, and Information Technology assets.



STREETS

San Francisco is a national leader in complete streets design that accommodates all transportation modes and prioritizes safety for vulnerable users. In order to streamline the capital funding process for this work, the SFMTA unified the former Bicycle, Pedestrian, School, and Traffic Calming capital programs into a more integrated and diverse Streets Program that will invest in capital projects to make our streets safe, vibrant and enjoyable places to walk and bike.

Bicycle

The Bicycle Program is designed to create a cohesive, city-wide network of safe bicycle routes. The agency's overall goal is to more than double the current number of trips taken by bicycles on our city streets from 2013 to 2018. Bicycle Program funds are used for the planning, design and construction of capital projects to enhance the safety and comfort of San Francisco's bicycle infrastructure, including: new bicycle lanes and separated cycletracks, safety and spot improvements, and secure bicycle

More information on Vision Zero, WalkFirst and other pedestrian-focused planning and projects is available on the website: visionzerosf.org.



parking. The SFMTA Bicycle Strategy identified key corridors that have a high rate of bicycle travel, high population density, and frequent collisions with cars. Concentrating infrastructure improvements in these corridors helps to eliminate the most dangerous bicycling conditions and improve the safety of San Francisco for bicyclists citywide.

The Bicycle Program in the CIP also supports events such as Bike to Work Day and bicycle education and safety programs in local elementary schools.

Pedestrian

Making the city's streets safe, vibrant and enjoyable places to walk is integral to SFMTA's goal of a Transit First city. Whether people are walking to a bus stop, a car, or all the way to their destination, almost every trip is in part a pedestrian trip – and 25 percent of all trips in San Francisco are made by walking alone (Source: 2015 Travel Decision Survey). The Pedestrian Program covers planning, design, and implementation of capital projects such as refuge islands, speed tables, and corner bulb-outs. Such projects help protect people walking from car traffic, turning neighborhood roads into Complete Streets and making busy intersections more people-friendly.



SFMTA is a key partner in city-wide task forces such as WalkFirst, Vision Zero, and the Pedestrian Safety Advisory Committee to conduct rigorous, data-driven studies and community outreach. Only 12 percent of San Francisco streets account for 70 percent of severe or fatal pedestrian injuries. By focusing on these high-injury corridors and intersections, capital projects can vastly improve the safety of San Francisco as a whole.

More information on Vision Zero, WalkFirst and other pedestrian-focused planning and projects is available on the website: www.visionzerosf.org.

School

Providing San Francisco children with safe and direct routes to school is a critical objective of the SFMTA. The Streets Program provides funding for capital projects and programs that help to make active modes of transportation safer and more accessible for children, including those with disabilities. Funded projects include street redesigns, bicycle infrastructure, removal of pedestrian barriers, and programs such as Walk to School Day and pedestrian safety classes in elementary schools.



Traffic Calming

The Traffic Calming Program helps to make San Francisco streets welcoming environments for all users by slowing car traffic and increasing the safety and visibility of people walking, bicycling, and using transit. Program funds are used to plan, design, engineer, and construct capital projects such as ‘road diets’ (e.g. narrowing roads and/or widening sidewalks to reduce car speeds), speed humps, pedestrian median islands, traffic circles, and lane shifting. Since a pedestrian struck by a car moving at 30 mph is six times more likely to die than a pedestrian being struck by a car moving at 20 mph, slowing car traffic is paramount to reducing pedestrian and bicyclist deaths – especially in the city’s residential neighborhoods.

Traffic calming projects fall into three categories (local, arterial, or school) depending on the type of street being treated. These projects are often combined with streetscape enhancements, pedestrian projects and bicycle infrastructure to create vibrant and livable Complete Streets.

More information on traffic calming is available on the SFMTA website: <http://www.sfmta.com/node/77946>



TAXI

The Taxi Program strives to make comfortable, efficient, and environmentally friendly taxis available throughout the city. Program funds are used to plan, design, and implement improvements to the taxi system and to provide a better customer experience for all taxi users. The Taxi Program includes initiatives to reduce the environmental impact of taxi use, such as a taxi Clean Air Energy Rebate which is given to companies and medallion holders that purchase new alternative fuel vehicles. It also includes programs to expand the taxi network through the installation of taxi stands and programs to encourage the innovative use of technology. Additionally, this program funds initiatives to improve driver safety and the customer experience through annual driver training programs that emphasize customer service and best safety practices.

More information on taxi projects is available on the SFMTA website: <http://www.sfmta.com/services/taxi-industry>



TRAFFIC & SIGNALS

Traffic signals are integral to the smooth functioning of the transportation system. The Traffic & Signals Program provides funding for upgrading, renovating and replacing traffic signals and signal infrastructure.

Some of San Francisco’s traffic signals and supporting infrastructure is over half a century old. Modernizing these systems to better manage traffic flow will result in substantial savings of both time and money for people across every mode of transportation. For example, through the innovative SFgo program, SFMTA is replacing outdated signals with Intelligent Transportation Systems (ITS) tools to enhance traffic analysis, provide transit signal priority, and expedite maintenance procedures. The ITS tools include advanced traffic signal controllers, traffic cameras, video detection, variable message signs, a communications network, the Transportation Management Center (TMC) and remote workstations.

This program also funds the design and construction of new and upgraded traffic signals to improve safety. Upgrading and replacing signals and signal infrastructure will decrease travel time, improve mobility, and increase the safety of the roadways.



Under MTC Resolution No. 3434, the Regional Transit Expansion Program, the Metropolitan Transportation Commission (MTC) identified specific bus, rail and ferry projects as priority for transit expansion in the Bay Area. The following sections provide information on the two SFMTA expansion projects included in MTC Resolution No. 3434: 1) Central Subway; 2) Van Ness Bus Rapid Transit Project.

MAJOR EXPANSION PROJECTS

CENTRAL SUBWAY

The Central Subway Project is the second phase of the SFMTA's Third Street Light Rail Transit Project. Phase 1 of the project constructed a 5.4-mile light-rail line along the densely populated Third Street corridor. This first segment of the T Third Line opened to customers in April 2007, restoring light-rail service to a high transit-ridership corridor of San Francisco for the first time in 50 years.

Phase 2, the Central Subway Project, will extend the T Third Line from the 4th Street Caltrain Station to Chinatown, providing a direct, rapid transit link from the Bayshore and Mission Bay areas to South of Market (SoMa), Union Square and Chinatown. Four new stations will be built along the 1.7-mile Central Subway Project alignment:

- **4th and Brannan Station** at 4th and Brannan streets (street level)
- **Yerba Buena/Moscone Station** at 4th and Folsom streets (subway)
- **Union Square/Market Street Station** on Stockton Street at Union Square (subway)
- **Chinatown Station** at Stockton and Washington streets (subway)

The Central Subway Project will contribute greatly to San Francisco's economic competitiveness and help secure the city's status as a regional, national and global hub. It will provide frequent, clean, pollution-free transit service and increase transit capacity on the entire T Third line, from Chinatown to Sunnydale. The Central Subway will provide reliable transportation for residents of one of the most densely populated neighborhoods in the country, provide a rapid transit link to a

Figure 23. Map of T Third Phase 2 (Central Subway)



burgeoning technology and digital-media hub, and improve access to a premier commercial district and tourist attraction. Additionally, this project will help reduce the environmental impact of transportation in our city, save natural resources, reduce traffic congestion and improve transportation options for an underserved area of San Francisco. The project map displays the continuous alignment of both phases of the Third Street Light Rail Program, when completed.

PROJECT CAPITAL COSTS

The Central Subway's capital budget is \$1.6 billion.

The Federal Transit Administration (FTA) sponsored a year-long formal Central Subway Risk Assessment as part of the FTA New Starts Program to complete the preliminary engineering of the project, achieve FTA Final Design entry approval, and to identify the total project FTA eligible capital costs. From May 2008 through May 2009, a series of four Risk Assessment

Workshops performed a detailed risk analysis of the project costs, constructability, and schedule. At the conclusion of these workshops, the FTA recommended a capital budget of \$1.6 billion and a construction completion date of December 2018.

CAPITAL FUNDING SOURCES

The Third Street Light Rail Transit Project is the most significant capital investment in public transit in San Francisco in generations. About \$648 million was invested in Phase 1 of the project, and nearly \$1.6 billion is budgeted for Phase 2.

The Central Subway Project is funded by a mixture of federal, state and local sources, as shown in the table below. The majority of funding for the Central Subway Project will be provided by the FTA's New Starts program, with a total approved commitment

of \$942.2 million. An additional \$41 million in federal funds is designated to the project as part of the U.S. Department of Transportation's Congestion Mitigation and Air Quality Improvement Program, which supports environmental efforts for surface transportation and related projects.

The baseline budget for the Central Subway Project remains at \$1.6 billion. There has been no increase in the local funding commitment since original voter approval in 2003 of \$126 million in Proposition B/K sales tax funds. The table below presents Central Subway funding allocations, use of funds and amounts to date by source, and is organized by funding sources, reports the grant funds received and expended and the cash balance remaining by source.

There are no significant changes in secured or anticipated funding from that listed in MTC Resolution No. 3434. The SFMTA has \$100M in commercial

Table 45. Central Subway Capital Costs, as of May 2016

PROJECT CAPITAL ELEMENTS <i>(Applicable line items only)</i>	YOE DOLLARS TOTAL (\$ MILLIONS)
10 Guideway & Track Elements (1.7 miles)	\$286
20 Stations, Stops, Terminals, Intermodal (4)	\$574
40 Sitework & Special Conditions	\$206
50 Systems	\$95
Construction Subtotal (10 - 50)	\$1,161
60 ROW, Land, Existing Improvements	\$37
70 Vehicles (4)	\$26
80 Professional Services (Applies To Cats. 10-50)	\$329
Subtotal (10 - 80)	\$1,553
90 Unallocated Contingency	\$25
Total Project Cost (10 - 100)	\$1,578

Table 46. Central Subway Funding Sources, Expenditures, and Cash on Hand, as of August 2016

FUNDING SOURCES	COMMITTED FUNDING	TOTAL AWARDED FUNDS TO DATE	ENCUMBRANCES (CURRENT)	EXPENDITURES BILLED TO DATE	REMAINING BALANCE
Federal					
Sect. 5309-NS	\$ 942,200	\$ 619,196	\$ 90,536	452,170	\$ 76,489
CMAQ	\$ 41,025	\$ 41,025	\$ 0	\$ 41,025	\$ 0
Federal Subtotal	\$ 983,225	\$660,221	\$ 90,536	\$ 493,195	\$ 76,489
TCRP	\$ 14,000	\$ 14,000	\$ 0	\$ 14,000	\$ 0
State RIP	\$ 88,000	\$ 12,498	\$ 0	\$ 5,992	\$ 6,506
Prop 1B (I-Bond) PTIMSEA	\$ 307,792	\$ 307,792	\$ 56,245	\$ 238,750	\$ 12,797
Prop 1A (HSR-Bond)	\$61,308	\$ 61,308	\$ 0	\$ 61,308	\$ 0
State Subtotal	\$471,100	\$ 395,598	\$ 56,245	\$ 320,050	\$ 19,303
Prop K	\$ 123,975	\$ 123,975	\$ 0	\$ 123,440	\$ 535
Local Subtotal	\$ 123,975	\$ 123,975	\$ 0	\$ 123,440	\$ 535
TOTAL	\$ 1,578,300	\$ 1,179,794	\$ 146,781	\$ 936,685	\$ 96,327

capacity that is available for use by the Central Subway project in the event that grant receipts are delayed. On April 26, 2011, SFMTA obtained a commitment from the Metropolitan Transportation Commission (MTC) for \$150 million of (State) Regional Improvement Program funds to the project to be accessed in the event project costs increase above \$1.6 billion.

As of May 2016, the total net incurred costs for the project are \$941.3 million. This incurred amount equals 60% of the total project budget of \$1.6 billion. The Total Project Contingency is \$79.7 million, which is \$19.7 million more than the FTA recommended minimum contingency level of \$60 million.

PROJECT SCHEDULE

The Central Subway Project has been in the planning, design, and construction phases for just over a decade. In that time, the major project milestones include:

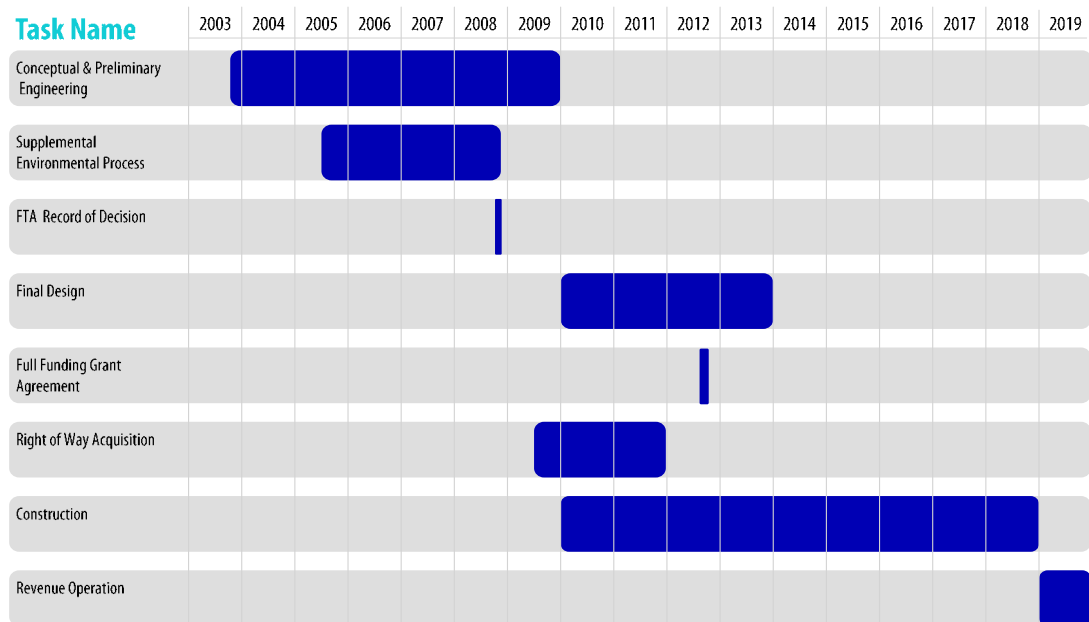
- 2005: The supplemental environmental review process for the Central Subway Project began. More than 200 public meetings were held before the project received environmental clearance from the FTA in November 2008.
- 2010: Work to relocate utility lines began at the future site of the Yerba Buena/Moscone Station. Similar work began in 2011 to prepare the site where the Union Square/Market Street Station will be built. In 2012, construction to prepare for the Central Subway tunnel commenced in SoMa, Union Square and North Beach.
- 2012: After a decade of planning, design and advocacy, an agreement dedicating \$942.2 million in New Starts funds to the Central Subway Project was approved by the FTA in October 2012.

- 2013: Construction of the subway tunnel and stations started and will continue through 2018.
- 2015: Construction of the subway tunnel contract was completed on-time and under budget. The subway tunnel contract was awarded the Outstanding Transportation Project of the year in the State of California by the American Society of Civil Engineers.
- 2019: Revenue service in the Central Subway segment of the TThird Line is slated to start.

CENTRAL SUBWAY OPERATING COSTS

The Central Subway, with its 35,000 projected daily boardings by 2030, will increase the SFMTA's annual operating budget by less than 0.25 percent. When the Central Subway opens to the public in 2019, it is expected to increase the SFMTA's overall operating budget by \$20.8 million. By 2030, the cost of operating the subway is projected to be approximately \$575 million in current dollars.

Figure 24. Central Subway Project Schedule



ASSOCIATED LAND USE CHANGES

The SFMTA has collaborated with the SF Planning Department and the San Francisco County Transportation Authority (SFCTA) to understand and prepare for growth associated with development projects in Mission Bay and the southeast quadrant of the city. This collaboration has resulted in a better understanding of the future travel plans of customers along the alignment and improved operating-cost projections.

BAYVIEW/HUNTERS POINT AND MISSION BAY

The T Third Line was designed with population growth in mind and will be able to accommodate new ridership without overcrowding as the Visitacion Valley, Bayview/Hunters Point, and Mission Bay areas continue to develop. Currently 68 percent of residents along the Central Subway alignment do not own vehicles and rely heavily on public transportation.

With the influx of 10,000 new housing units planned for Hunters Point and the Schlage Lock redevelopment site and the dramatic growth in businesses and residential units in Mission Bay, an estimated 24,000 additional people will depend on the T Third Line to connect to Caltrain, AT&T Park, the proposed Warriors Arena, Yerba Buena/Moscone Convention Center, Market Street, Union Square, and Chinatown.

CENTRAL SOMA

In 2011, the San Francisco Planning Department began the process to develop an integrated community vision for the southern portion of the Central Subway rail corridor, generally bounded by 2nd and 6th Streets between Townsend and Howard streets (see Figure). The Draft Plan was largely funded by a Transportation Planning Grant from Caltrans. The Central SoMa Plan

provides the vision and the strategies to create a sustainable neighborhood around the Fourth Street transit spine, while maintaining SoMa's diverse social and economic mix. The plan presents a comprehensive strategy that addresses such issues as land use, building size and heights, transportation to support the city's Vision Zero and Transit First policies, the public realm (including sidewalks and open space), preservation of historic buildings and environmental sustainability. The Central SoMa Plan will also increase access to jobs and to housing, make safer streets and more public spaces, strengthen the neighborhood's character, support economic vitality, and improve 24-hour livability. To adopt the Plan,

Figure 25. Central SoMa Project Area



the Planning Commission will need to approve the Plan, certify the EIR, and forward the legislation to the Board of Supervisors for their approval. The San Francisco Planning Department will begin the process of adopting the Plan in Spring of 2017.

LAND ACQUISITION

In preparation for the extensive construction process for the Central Subway, the SFMTA has acquired many properties adjacent to the line and stations in order to provide land for the construction of the stations. Specifically, the agency has gained lands adjacent to the Moscone/Yerba Buena, Union Square and Chinatown stations, and acquired easement rights with private property owners in order to accommodate the machinery and equipment needed for construction. The land adjacent to the Moscone/Yerba Buena Station will be used for an affordable housing development, and the site of the Chinatown station will accommodate, in addition to the station entrance itself, a public plaza and a small retail component.

POLICY, PLANNING, FUNDING OR OPERATING ISSUES

There are no current or anticipated policy, planning, funding or operating issues associated with the project.

Figure 26. Van Ness Bus Rapid Transit Project Area



VAN NESS BUS RAPID TRANSIT PROJECT

The Van Ness Bus Rapid Transit (BRT) project will apply bus rapid transit principles including transit-only lanes, transit signal priority, high-quality stations and streetscape elements to Van Ness Avenue between Mission Street and Lombard Street. Transit on this section of the corridor is currently provided by Muni routes 47, 49 and 90, and Golden Gate Transit service. As one of the busiest north-south corridors in San Francisco, the combined service has an average ridership of 16,000 passengers per day, and ridership is expected to grow to 25,000-30,000 passengers per day along this corridor by 2035.

When completed, this project will bring faster and more reliable transit service to this important corridor. Implementation of BRT service and infrastructure changes are expected to cut transit travel times by 32 percent.

PROJECT CAPITAL COSTS & FUNDING SOURCES

The cost estimate for the Van Ness BRT Project is approximately \$189.5 million (including bus procurement), as of Summer 2016. Funding for the Van Ness BRT project comes from a variety of sources including FTA Small Starts, San Francisco Prop K funds, and developer contributions. Projects associated with the Van Ness BRT project include repaving Van Ness Avenue, new traffic signal hardware and software, new transit vehicles, and streetlights/poles replacement. These projects are funded by FTA Formula Funds, San Francisco Prop K funds, regional, and statewide sources.

Of the approximately \$189.5 million total project cost, local, regional, and state programs account for \$72.5 million of this amount, \$75 million is secured by FTA's Capital Investment Grant and Bus Facilities programs, and \$38 million from Proposition K, San Francisco's half-cent sales tax increase. As of March 2017, there are no changes in secured or anticipated funding for the project.

PROJECT SCHEDULE

The Van Ness BRT Project completed the environmental review phase in December 2013 and finalized the detailed design of the project in 2016. Construction began in October 2016, and revenue service along the corridor is anticipated to begin in 2019.

Table 47. Van Ness Bus Rapid Transit Project Capital Costs, as of June 2016

PROJECT CAPITAL ELEMENTS <i>(Applicable line items only)</i>	YOE DOLLARS TOTAL (\$ MILLIONS)
10 Guideway & Track Elements (2 miles)	\$6.2
20 Stations, Stops, Terminals, Intermodal (9)	\$4.6
30 Support Facilities: Yards, Shops, Administrative Buildings	\$0
40 Sitework & Special Conditions	\$96.2
50 Systems	\$10.4
Construction Subtotal (10 - 50)	\$117.4
60 ROW, Land, Existing Improvements	\$0
70 Vehicles (4)	\$4
80 Professional Services (Applies To Categories 10-50)	\$51.7
Subtotal (10 - 80)	\$169.1
90 Unallocated Contingency	\$16.4
Subtotal (10 - 90)	\$189.5
100 Finance Charges	\$0
Total Project Cost (10 - 100)	\$189.5

Table 48. Van Ness Bus Rapid Transit Project Schedule

DATE	MILESTONE
September 2013	Local CEQA Approval
December 2013	Final EIR/EIS – Record of Decision (ROD)
December 2013	Draft 30% Design
April 2014	30% Design complete
October 2014	Submit Draft Small Starts Grant Agreement to FTA
November 2014	65% Design complete
April 2015	Small Starts Grant Agreement Execution
July 2015	100% Design complete
2017 - 2018	Arrival of new transit vehicles
2016 - 2019	Construction period
2019	Revenue Service

VAN NESS BUS RAPID TRANSIT OPERATING COSTS

The table below shows the projected annual costs for SFMTA to run vehicles and provide revenue service for the No Build Alternative and initial build alternatives included in the environmental review documentation. The locally-preferred alternative (LPA) is a combination of Alternatives 3 and 4, and therefore the costs associated with the LPA would be similar to these options. The build alternatives would allow SFMTA to provide the same amount of service to passengers for a 16- to 32-percent lower operating cost, as shown in the table. The LPA operating cost would be similar to that of Build Alternatives 3B and 4B, with 32 percent lower operating cost compared to the No Build Alternative. This savings is due to the faster speed and shorter running times, which means maintaining the same frequency of service would require fewer vehicles operating on the corridor at any one time. These operating savings could be reinvested in the corridor and used to increase the frequency of the BRT service, or they could be invested in other parts of the Muni system.

Each of build alternatives and the LPA would have a modest incremental maintenance cost over and above the no-build scenario. Increased maintenance costs include repairs to potholes and patches to the runningway; maintenance of the red transit-only lanes; additional landscaping costs to prune trees under Build Alternatives 3 and 4 due to their proximity to the overhead wire system; additional platform cleaning and repair; and maintenance of additional ticket vending machines required to support platform proof of payment. The LPA maintenance costs would be similar to those of Build Alternative 3B in the table below, and the major component of runningway maintenance costs, tree pruning costs, would be similar to Build Alternative 4B. Incremental costs attributed to the build alternatives are based on estimates from Public Works and the SFMTA.

ASSOCIATED LAND USE CHANGES

Although there are no local land use policy changes associated with the project, there is a great deal of new development along the Van Ness Avenue corridor. The new California Pacific Medical Center plan for

the Van Ness and Geary campus was approved by the Planning Commission and at least twenty high density residential and office developments along the corridor are in the planning or construction phase.

There are many city-owned or controlled properties adjacent to the Bus Rapid Transit stops. Some of these properties include: City Hall, War Memorial Opera House, Davies Symphony Hall, One South Van Ness, 25 Van Ness Avenue, 30 Van Ness, and the Goodwill store at 1500 Mission Street (on the corner of South Van Ness and Mission). Though outside the scope of the Van Ness BRT project, some of these city-owned properties along the corridor may be reviewed as potential development sites at a later date, independent of the BRT project.

POLICY, PLANNING, FUNDING OR OPERATING ISSUES

At this time, there are no existing or anticipated policy, planning, funding or operating issues associated with the project.

Table 49. Projected Van Ness BRT Operating Cost

COSTS	NO BUILD ALT.	BUILD ALT. 2	BUILD ALT. 3	BUILD ALT. 3 (with Design Option B)	BUILD ALT. 4	BUILD ALT. 4 (with Design Option B)
Annualized Revenue Hour Vehicles Operating Costs*	\$ 8,300,000	\$ 6,900,000	\$ 6,100,000	\$ 5,600,000	\$ 6,100,000	\$ 5,600,000
Other Incremental Annualized O&M Costs**	n/a	\$ 200,000	\$ 400,000	\$ 400,000	\$ 300,000	\$ 300,000
TOTAL	\$ 8,300,000	\$7,100,000	\$ 6,500,000	\$ 6,000,000	\$ 6,400,000	\$ 5,900,000

* Only includes costs to operate BRT between Mission and Lombard Street.

** Only includes incremental costs associated with BRT.



GUIDING POLICY: TRANSIT FIRST

In 1973, the San Francisco Board of Supervisors adopted a Transit-First Policy, later amended in 2007. It can be found in the City and County of San Francisco Charter, and reads as follows:

SEC. 8A.115. TRANSIT-FIRST POLICY.

(a) The following principles shall constitute the City and County's transit-first policy and shall be incorporated into the General Plan of the City and County. All officers, boards, commissions, and departments shall implement these principles in conducting the City and County's affairs:

1. To ensure quality of life and economic health in San Francisco, the primary objective of the transportation system must be the safe and efficient movement of people and goods.
2. Public transit, including taxis and vanpools, is an economically and environmentally sound alternative to transportation by individual automobiles. Within San Francisco, travel by public transit, by bicycle and on foot must be an attractive alternative to travel by private automobile.
3. Decisions regarding the use of limited public street and sidewalk space shall encourage the use of public rights of way by pedestrians, bicyclists, and public transit, and shall strive to reduce traffic and improve public health and safety.
4. Transit priority improvements, such as designated transit lanes and streets and improved signalization, shall be made to expedite the movement of public transit vehicles (including taxis and vanpools) and to improve pedestrian safety.
5. Pedestrian areas shall be enhanced wherever possible to improve the safety and comfort of pedestrians and to encourage travel by foot.
6. Bicycling shall be promoted by encouraging safe streets for riding, convenient access to transit, bicycle lanes, and secure bicycle parking.
7. Parking policies for areas well served by public transit shall be designed to encourage travel by public transit and alternative transportation.
8. New transportation investment should be allocated to meet the demand for public transit generated by new public and private commercial and residential developments.
9. The ability of the City and County to reduce traffic congestion depends on the adequacy of regional public transportation. The City and County shall promote the use of regional mass transit and the continued development of an integrated, reliable, regional public transportation system.
10. The City and County shall encourage innovative solutions to meet public transportation needs wherever possible and where the provision of such service will not adversely affect the service provided by the Municipal Railway.



ACKNOWLEDGEMENTS

SFMTA BOARD MEMBERS

Cheryl Brinkman, Chair
Malcolm Heinicke, Vice-Chair
Gwyneth Borden
Lee Hsu
Joél Ramos
Cristina Rubke
Art Torres
Roberta Boomer, Board Secretary

SFMTA EXECUTIVE TEAM

Edward D. Reiskin, Director of Transportation
Sonali Bose, Director of Finance & Information Technology
Kate Breen, Director of Government Affairs
Susan Cleveland-Knowles, General Counsel
Donald Ellison, Director of Human Resources
John Funghi, Director of Central Subway Program
John Haley, Director of Transit
Melvyn Henry, Director of System Safety
Tom Maguire, Director of Sustainable Streets
Candace Sue, Director of Communications
Kate Toran, Director of Taxis & Accessible Services
Siew-Chin Yeong, Director of Capital Programs & Construction

S RTP DEVELOPMENT TEAM

Keith Tanner
Darton Ito
Grahm Satterwhite
Lucas Woodward
Dana Baker
Chimmy Lee

Development of this Short Range Transit Plan has involved a large number of individuals associated with the San Francisco Municipal Transportation Agency. We would like to thank everyone who was involved for contributing their time and expertise to this planning effort.

PHOTOGRAPHY & FIGURES

All images and figures by the San Francisco Municipal Transportation Agency unless noted.
<http://sfmta.photoshelter.com/>

SFMTA Fiscal Year 2017 - Fiscal Year 2030 Short Range Transit Plan

San Francisco Municipal Transportation Agency
1 South Van Ness Avenue
San Francisco, CA 94103

www.sfmta.com
