



City and County of San Francisco Capital Plan Update
SFMTA 5-Year Capital Improvement Program

Capital Planning Committee

March 3, 2020





Transportation:

- System **Needs** Update
- System **Management** Update
- System **Improvement** Update
- System **Financial** Update



SFMTA

Transportation: System **Needs** Update

- SFMTA 20-Year Capital Plan Update
- CCSF 10-Year Capital Plan Update

SFMTA 20-Year Capital Plan

The San Francisco Municipal Transportation Agency's (SFMTA) **20-year Capital Plan** is a need-based assessment of the SFMTA's anticipated capital needs for the upcoming 20 years.

- It is a **financially unconstrained** plan and includes capital needs for which funding has not yet been committed
- The purpose of the Capital Plan is to identify all of the **potential capital investment needs to achieve the City's transportation goals**

SFMTA 20-Year Capital Plan



2019 SFMTA 20-Year Capital Needs

An overview of the agency's anticipated capital needs from Fiscal Year 2020 – Fiscal Year 2040.

SFMTA Board of Directors Approval: _____
September 2019



SFMTA 20-Year Capital Plan

SFMTA 20-Year Capital Plan needs for the transportation system **grew by \$8.9 billion between 2017 and 2019.**



\$21.9 B
2017

\$30.7 B
2019

SFMTA 20-Year Capital Plan

Why the
increase from
2017 to 2019?

Vision Zero

Electric Bus Fleet
Transition

Updating Costs
based on Actuals

State of
Good Repair

Next Generation of
Muni Forward

- Increased investment needs in *Streets* to achieve Vision Zero safety goals.
- Increased investment in *Fleet and Facility* to support transition to an all-battery-electric fleet.
- Revised cost estimates in the *Traffic Signals & Signs* to better account for the total cost of the work.
- Investments in the *Streets and Facility Program* needed to better regulate emerging mobility.
- Increased investment needs in *Transit Fixed Guideway* to maintain the system in a state of good repair.
- Increased investment needs in *Transit Optimization & Expansion* include the next step in the Muni Forward program, building on current efforts to improve travel time and reliability.

SFMTA 20-Year Capital Plan

2019 Capital Plan Update Details:

PROGRAM	2017 Total Capital Needs (constant 2017 dollars, rounded)	Percent of 2017 Capital Needs	2019 Total Capital Needs (constant 2019 dollars, rounded)	Percent of 2019 Capital Needs	Percent Change from 2017
Communications & Information Technology	\$237 M	1.1 %	\$218 M	0.7 %	-8.1 %
Facility	\$3,490 M	15.9 %	\$4,599 M	14.9 %	31.8 %
Fleet	\$4,540 M	20.7 %	\$5,419 M	17.6 %	19.4 %
Parking	\$671 M	3.1 %	\$681 M	2.2 %	1.4 %
Security	\$545 M	2.5 %	\$557 M	1.8 %	2.2 %
Streets	\$2,456 M	11.2 %	\$4,936 M	16.0 %	101.0 %
Taxi	\$65 M	0.3 %	\$65 M	0.2 %	0.1 %
Traffic Signals & Signs	\$576 M	2.6 %	\$1,488 M	4.8 %	158.3 %
Transit Fixed Guideway	\$1,310 M	6.0 %	\$1,755 M	5.7 %	34.0 %
Transit Optimization & Expansion	\$8,046 M	36.7 %	\$11,068 M	36.0 %	37.6 %
Total (all programs)	\$21,937 M		\$30,784 M		

SFMTA 20-Year Capital Plan

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CCSF-10 Year Capital Plan Update

With the update of the SFMTA 20-Year Capital Plan and new 5-Year Capital Improvement Program revenue estimates the **10-Year Capital Plan requires update**. Revenues are revised down and transportation system needs are revised up, **deferrals have increased from \$4.6 billion to \$10.9 billion**.

YEARLY SPENDING PLAN (\$ Millions)							PLAN TOTAL	DEFERRED
	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25-29		
Original	667.3	751.2	528.6	436.1	626.2	1,999.2	5,008.7	4,549.7
Updated	470.7	523.1	403.7	496.8	491.2	2,197.0	4,582.5	10,383.4
Change	(196.6)	(228.1)	(124.9)	60.7	(135.0)	197.8	(462.6)	5,833.7
SGR	227.8	246.9	211.0	274.6	244.2	1,242.1		
Non-SGR	243.0	276.2	192.7	222.3	247.0	1,246.7		



SFMTA

Transportation: System **Management** Update

- Asset Management Program
- 10-Year Asset Management Strategy
- Transit Asset Management Plan
- State of Good Repair Report

SFMTA Asset Management Program

A key objective of the SFMTA's Asset Management Program to *shift the business philosophy*, advancing the SFMTA from a reactive to preventative operational environment.



Reactive

Preventative

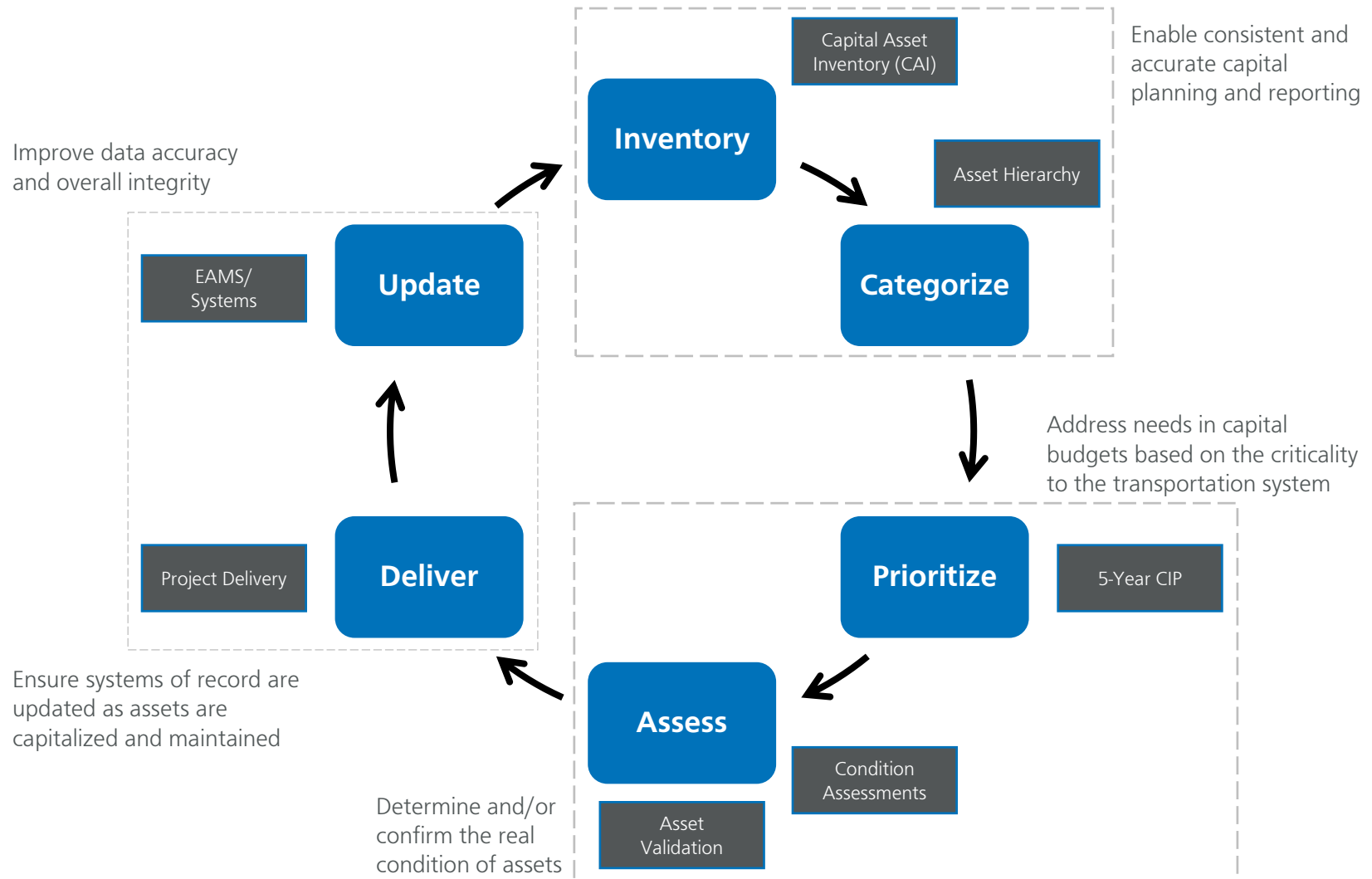
SFMTA Asset Management Program

Program Objective:

Asset Management connects information about the San Francisco Municipal Transportation Agency's assets to **decision making processes** in order to maximize the performance, reliability and safety of the transportation system.

The result, excellent transportation choices.

10-Year Asset Management Strategy



Transit Asset Management Plan – 49 CFR 625.25



Element/Requirement

Asset Inventory

Asset Condition Assessment

Analytical Process + Decision Support Tool

Investment Prioritization

(Ranked List of programs and projects)

Asset Management & State of Good Repair Policy

Implementation Strategy

(How to implement the TAM Plan)

Key Activities

(Actions over 4 years)

Resources

(Required resources for implementation)

Monitoring & Evaluation Strategy

State of Good Repair Report

The SFMTA has been producing an **annual State of Good Repair Report since 2015.**

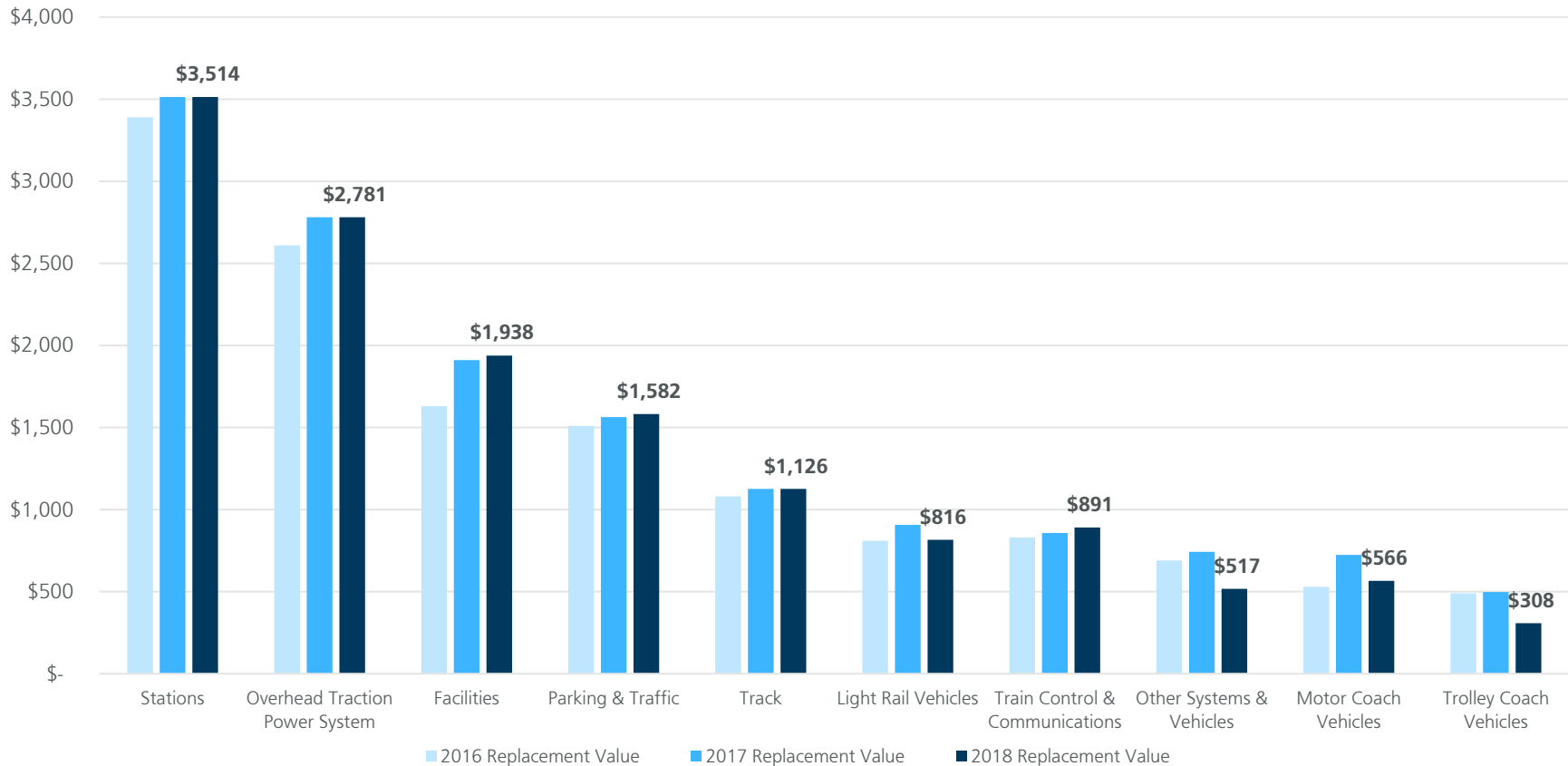
- Provides an overview of the transportation system's rehabilitation and replacement needs and invest impacts
- Outlines the state of the practice of transportation asset management
- The 2018 report was completed in June 2019
- The 2019 report is in development, and is expected to be complete in March 2020

<https://www.sfmta.com/asset-management-program>



State of Good Repair Report – Asset Total Replacement Value (2018)

The total replacement value of the SFMTA's assets in 2018 is \$14.04 billion, broken up into the following asset classes. In FY 2018, fleet asset data was updated, reflecting the contract and actual cost of the new Muni Fleet. Preliminary data from the 2019 analysis reflects changes due to inflation adjustments and fleet procurement.



State of Good Repair Report – Asset Reporting Classification Matrix

	Asset Class
Transit Service Critical	<ol style="list-style-type: none"> 1. Light Rail Vehicles 2. Motor Coach Vehicles 3. Overhead Catenary System 4. Track 5. Train Control & Communications 6. Trolley Coach Vehicles 7. Other Systems/Vehicles (TSC)
Other SGR	<ol style="list-style-type: none"> 8. Facilities 9. Parking & Traffic 10. Stations 11. Other Systems/Vehicles (Other)

The SFMTA categorizes asset classes into **Transit Service Critical (TSC)** and **Other SGR**.

Transit Service Critical is defined as *assets and systems that are essential to ensuring the safe and reliable functioning of the transit system, such as maintaining or replacing overhead wires, rail track, or transit vehicles.*

Other SGR signifies investments that help to *make the transportation network more efficient, and enjoyable for riders, along with maintenance of non-transit/street related assets such as pedestrian, bicycle, enforcement and administration.*

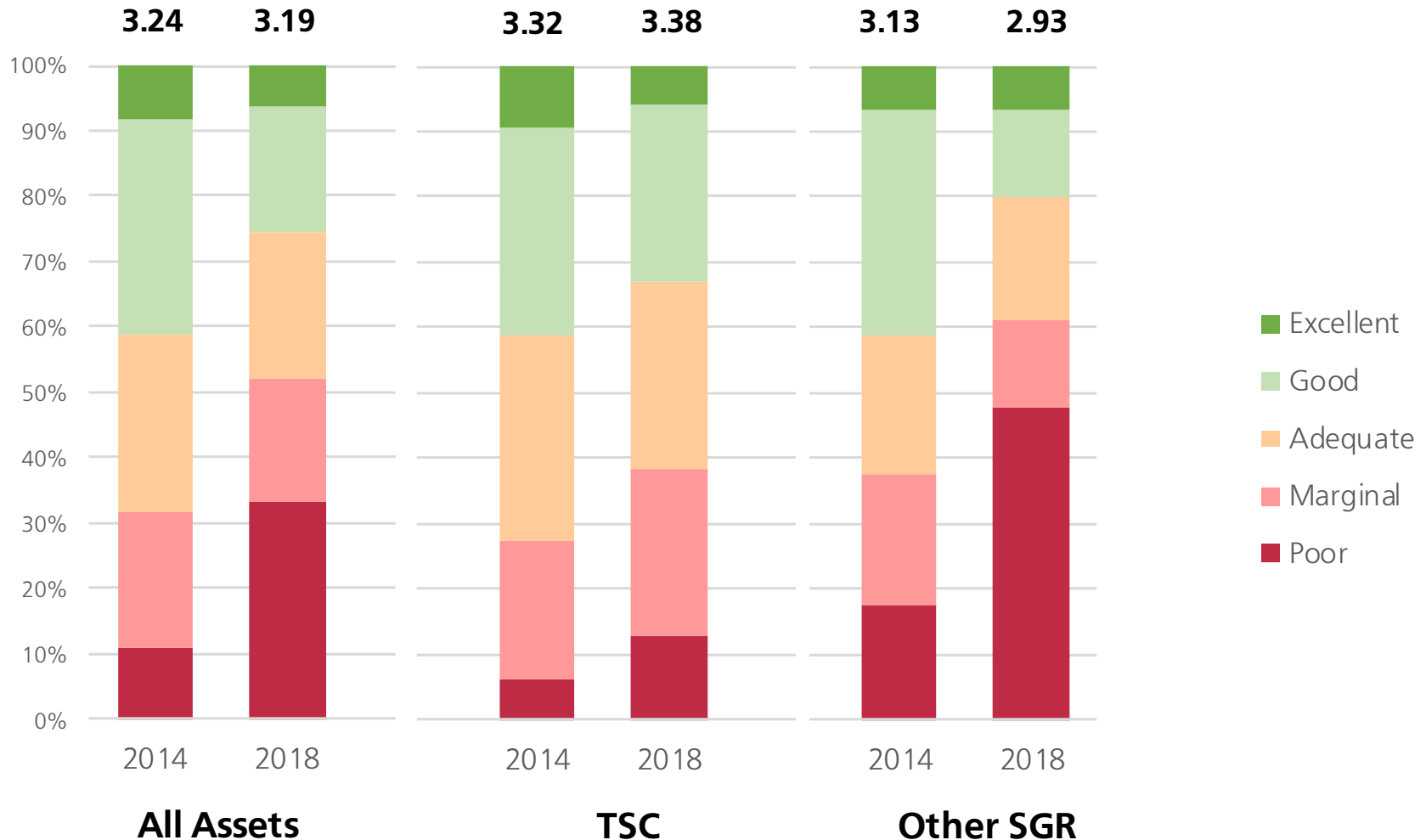
State of Good Repair Report – TERM Modeling

Transit Economics Requirement Model (TERM) Lite is a modeling tool developed by the Federal Transit Administration (FTA) used to assess the current physical condition and future investment needs of the nation's transit assets/operators.

- The TERM model produces a **condition score** for each asset in the capital asset inventory based on the **age and useful life** of the asset.
- State of good repair analysis uses **weighted condition scores** based on the total replacement cost for asset condition scores.
- This creates a more **accurate representation of the state of good repair of transportation system assets** as it is more detrimental if a high-value asset has a low condition score than a low value asset.
- An asset is considered to be in a State of Good Repair if its score is 2.5 or higher.

State of Good Repair Report – TERM Modeling

The average agency TERM Score in 2018 was **3.19**. Overall transportation assets remain in a state of good repair.



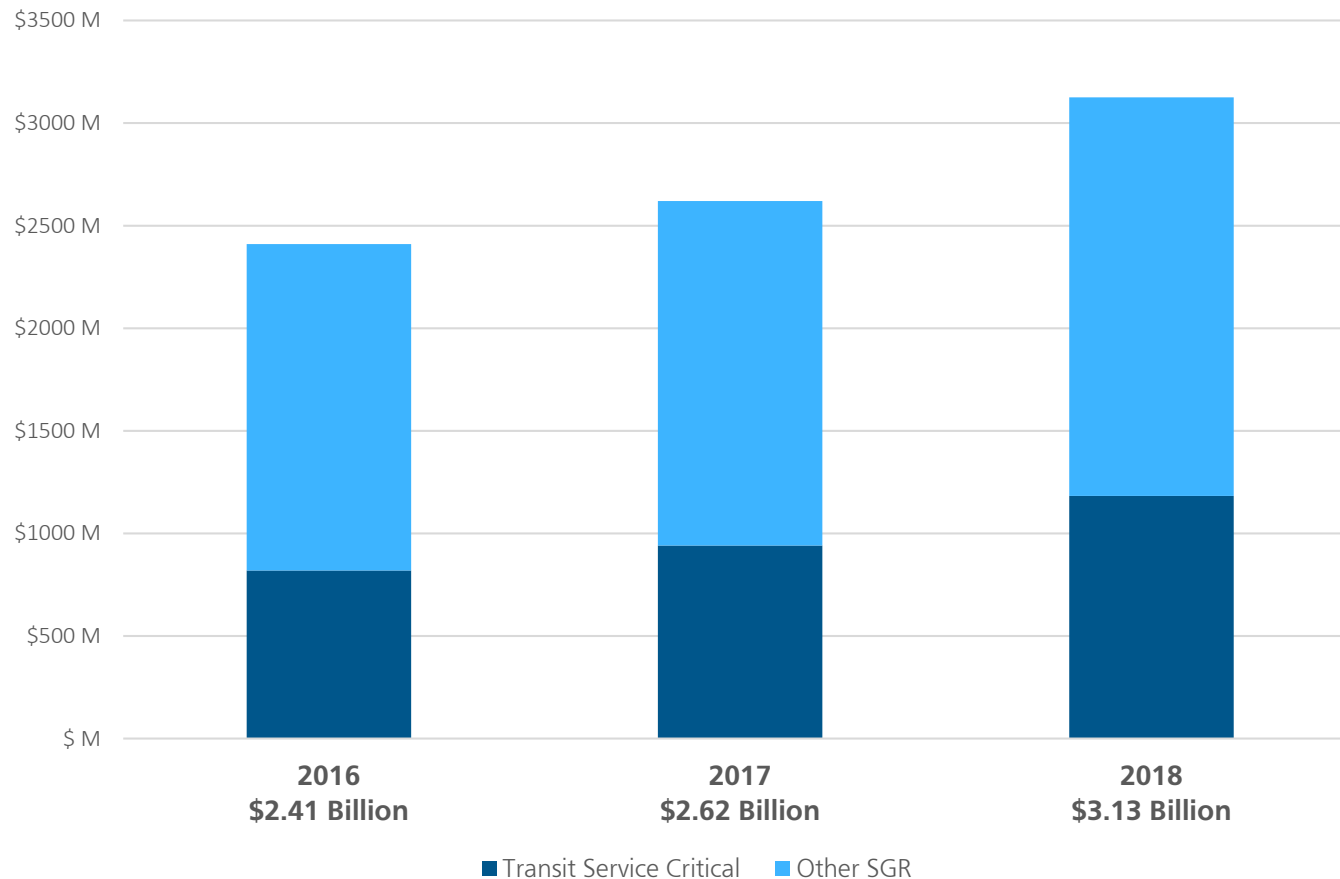
State of Good Repair Report – Condition Score Trends

The average agency TERM Score in 2018 is 3.19. The replacement of the trolley coach fleet resulted in a significant increase in the TERM score in 2018. Other Systems & Vehicles and Traffic Signal Infrastructure were reduced in 2018 as data was updated in the Capital Asset Inventory. Condition assessments are planned for 2020.

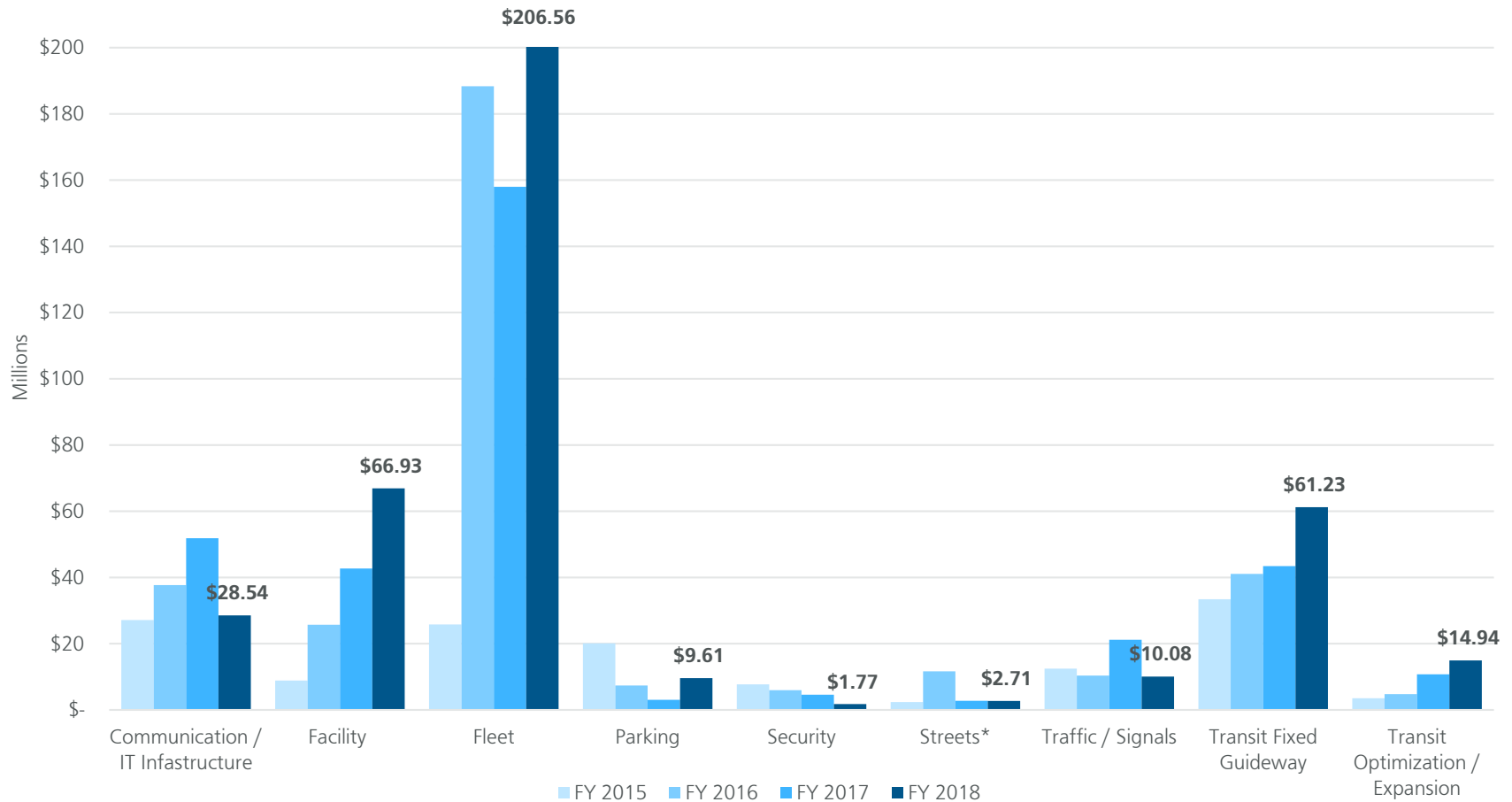
Asset Class	2014	2015	2016	2017	2018	2019
Facilities	3.4	3.2	3.2	3.3	3.3	2019 Data Pending
Light Rail Vehicles	3.1	3.8	3.8	3.7	3.8	
Motor Coach Vehicles	3.2	3.7	3.5	3.7	3.6	
Other Systems & Vehicles	3.2	3	3.1	3.1	2.6	
Overhead Traction Power System	3.7	3.7	3.7	3.6	3.5	
Parking & Traffic	2.8	2.8	3	2.9	2.4	
Stations	3.2	3.1	3.1	3.1	3	
Track	3.3	3.3	3.2	3.2	3.1	
Train Control & Communications	2.9	3.7	3.6	3.5	3.4	
Trolley Coach Vehicles	2.5	3.4	3.3	3.2	3.6	
Total Condition Score	3.24	3.33	3.32	3.3	3.19	

State of Good Repair Report – Estimated Backlog

The transportation asset estimated **backlog grew to \$3.13 billion in 2018**. Parking and Traffic assets represent the largest asset class in backlog at \$950 million followed by Stations (\$473 million), Facilities (\$466 million) and Overhead (\$420 million).

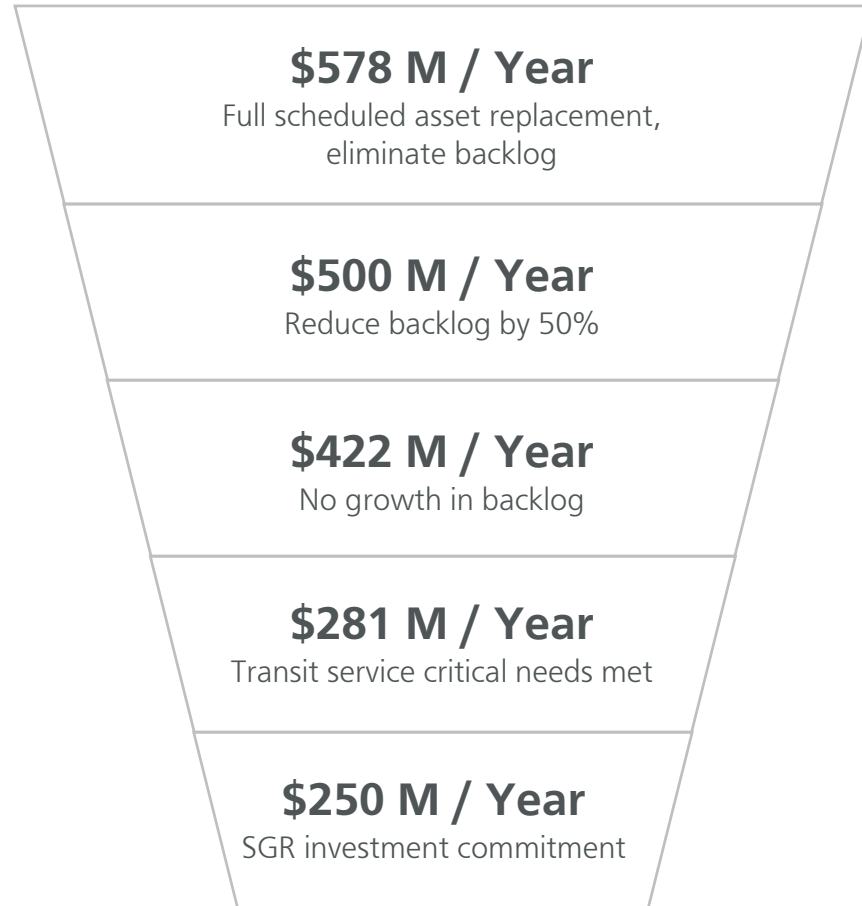


State of Good Repair Report – Spending FY 2015 – FY 2018

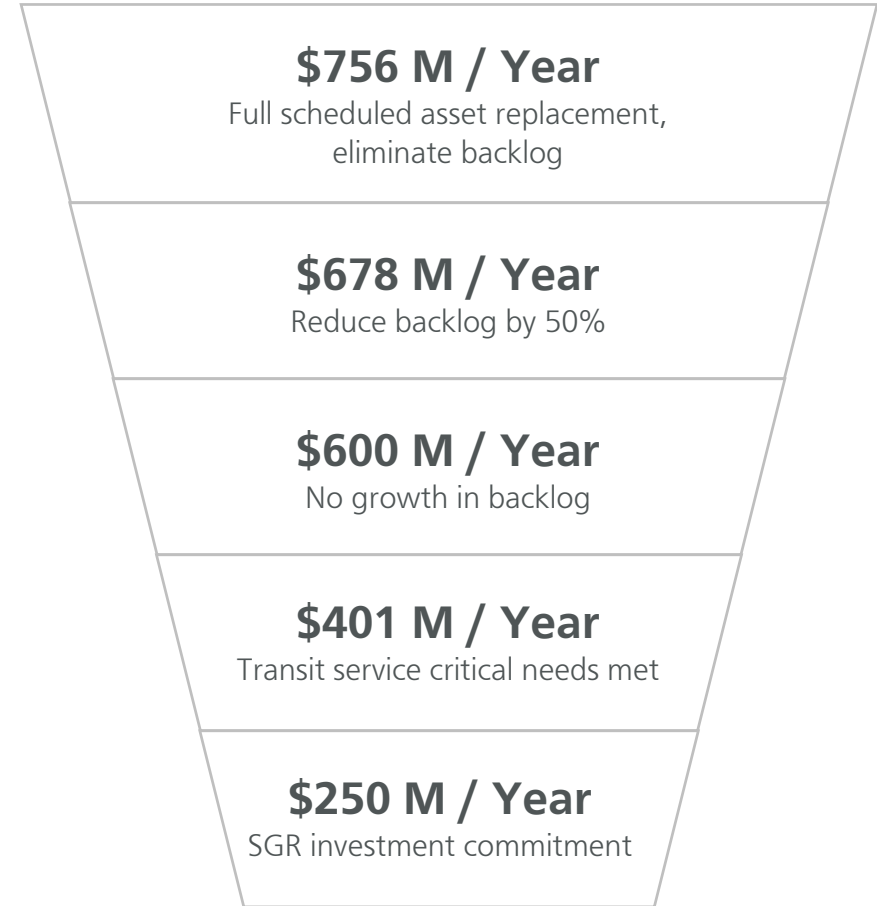


State of Good Repair Report – Planned Future Needs

Annual SGR Need (\$2018)



Annual SGR Need (Escalated @ 3% per year)



State of Good Repair Report – Next Steps

- In 2020, a **condition assessment of Traffic Signal Assets** will be completed, resulting in a new inventory, condition score and operational condition data.
- Additional condition assessments being initiated for Stations, Guideway, and Sustainable Streets assets.
- Integrate Asset Management data into the development of the **FY 2021 – 2025 Capital Improvement Program**.
- **Target investments** in the Capital Improvement Program that will deliver the most impact to the backlog and asset condition scores.
- Continue trend of **investing a minimum of \$250 million per year** in the State of Good Repair of the Transportation System.



SFMTA

Transportation: System **Improvement** Update

- 5-Year Capital Improvement Program
- Proposed FY 21 – 25 CIP
- 2-Year Budget

SFMTA 5-Year Capital Improvement Program

The SFMTA 5-Year Capital Improvement Program is a **fiscally constrained 5-year program of capital improvement and operational projects.**

- *An implementation plan* for regional, citywide, and agency-wide strategies and policy goals
- *Maintains credibility* with external funding agencies (eg. MTC, FTA)



SFMTA 5-Year Capital Improvement Program – CIP Programs/Descriptions



Fleet

Purchase and rehabilitate transit vehicles including motor coaches, trolley coaches, light rail vehicles and paratransit vans



Transit Optimization

Plan, design, engineer and construct infrastructure improvements to improve travel time and increase the capacity and reliability of the transit system



Signals

Plan, design, engineer and construct traffic signals and associated infrastructure to improve mobility and safety on San Francisco streets and decrease transit travel time



Fixed Guideway

Plan, design, engineer and construct improvements to critical infrastructure including rail track, overhead wires, and train control technology



Parking

Plan, design, rehabilitate and construct public parking facilities or street infrastructure related to public parking



Security

Plan, design and construct or implement systems to improve the security of the transit system



Taxi

Implement systems to optimize and support the taxi system in San Francisco to provide a better rider experience and promote low-emissions taxi vehicle use



Facilities

Acquire, develop and/or rehabilitate transit station areas and maintenance facilities used for transit, traffic, and parking operations.



Comm & IT

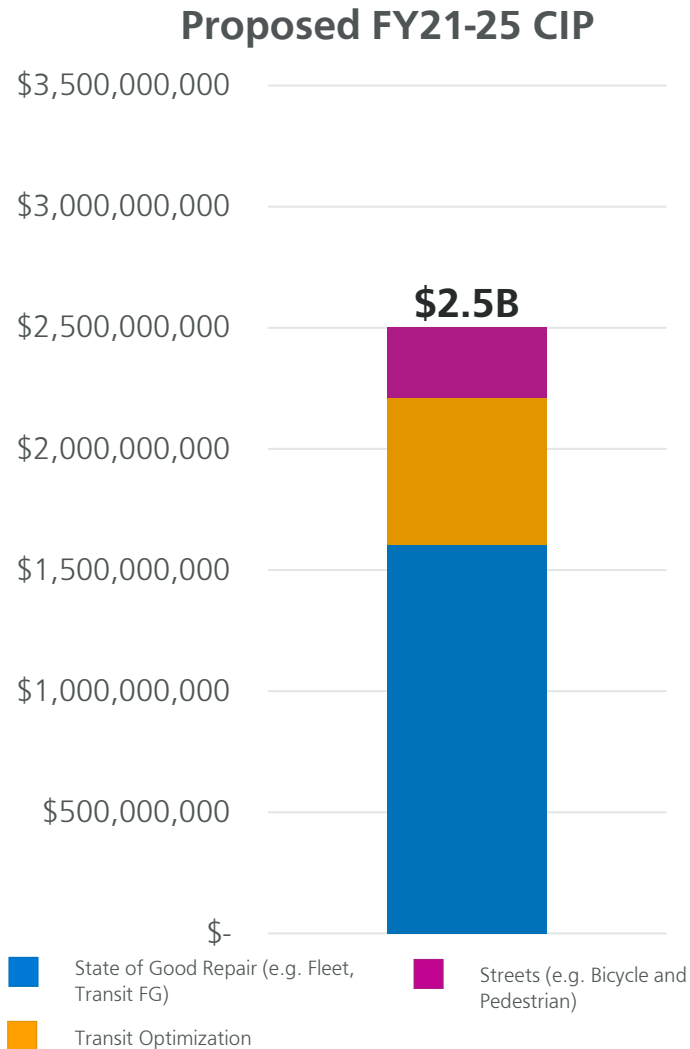
Plan, design and implement technology infrastructure upgrades to improve the efficiency and efficacy of the SFMTA and provide a better experience for customers and Employees.



Streets

Plan, design, engineer and construct improvements to street safety that promote walking, bicycling, and taking transit

SFMTA 5-Year Capital Improvement Program – Proposed FY 2021-25 CIP



157 Projects

\$2.5 Billion Investment

(down from \$3.4 Billion in FY 2017-21 CIP)

- FY 2021-25 CIP project prioritization in progress
- Several large projects:
 - Central Subway
 - LRV Replacement and Expansion Acceleration
 - Train Control System Upgrade
 - Better Market Street
 - Muni Forward
 - Potrero Modernization
- Reserves proposed within each capital program

SFMTA 5-Year Capital Improvement Program – Revenue Assumptions and Options

CIP Revenue Assumptions



Competitive Grants

Conservatively included at 80% of the three-year average of awarded amounts to SFMTA.



Regional Measure 3

\$140M in Regional Measure 3 (RM3) is included starting in FY2020-21. RM3 Core Capacity is included at \$18 million starting in FY2020-21.



Proposition D

The Transportation Network Tax (Proposition D) is assumed at \$62 million from FY21-25 based on available data.



\$60M TIRCP

The Transit and Intercity Rail Capacity Program (TIRCP) cap and trade grant is assumed at \$60M in FY2024-25.



FTA Transit Capital Priorities

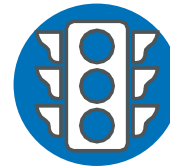
The Federal Transit Administration (FTA) Transit Capital Priorities (TCP) is based on the Core Capacity Challenge Grant Program (CCGP) estimate.

CIP Potential Revenues



2nd \$500M GO Bond

Scheduled to go on the ballot in November 2022. Not included in current revenue assumptions.



Proposition K

Potential re-authorization of the Proposition K sales tax is not included in current revenue assumptions.



Revenue Bonds

Significant capacity available but has impact on operating budget: debts service payments = ~\$7M annually per \$100M issued at current interest rates.



Regional Measure

One cent sales tax potentially scheduled to go on the ballot in November 2020. Expected to generate \$100.6 billion over 40 years. Not included in revenue assumptions.

SFMTA 5-Year Capital Improvement Program – Proposed FY 2021-25 CIP

Program	Capital Budget					5-Year CIP
	FY21	FY22	FY23	FY24	FY25	Total (Current)
Facility	\$47,213,263	\$46,840,914	\$71,862,148	\$28,605,580	\$5,232,380	\$199,754,285
Fleet	\$156,442,559	\$156,890,576	\$173,717,887	\$216,730,682	\$266,474,279	\$969,555,983
Security	\$2,048,291	\$2,048,291	\$2,048,291	\$2,048,291	\$2,048,291	\$10,241,455
Signals	\$16,174,246	\$3,115,000	\$7,766,560	\$1,515,986	\$5,411,923	\$33,983,715
Streets	\$63,560,800	\$87,374,542	\$51,098,909	\$51,905,539	\$49,854,904	\$292,664,694
Taxi	\$330,000	\$1,192,734	\$430,000	\$942,734	\$230,000	\$3,125,468
Transit Fixed Guideway	\$55,490,381	\$65,578,218	\$67,568,868	\$83,789,306	\$76,152,711	\$348,579,484
Transit Optimization	\$217,520,809	\$90,940,815	\$141,954,073	\$71,546,123	\$92,089,841	\$609,077,090
Central Subway	\$0	\$0	\$0	\$0	\$0	\$0
Communications & IT	\$7,535,000	\$3,740,000	\$1,265,000	\$9,350,000	\$4,400,000	\$26,290,000
Parking	\$0	\$420,000	\$80,000	\$0	\$0	\$500,000
Total SGR	\$273,193,639	\$245,863,489	\$290,583,859	\$276,238,350	\$279,355,331	\$1,362,292,381
Total	\$566,315,349	\$458,141,090	\$517,791,736	\$466,434,241	\$501,894,329	\$2,510,576,745

SFMTA 5-Year Capital Improvement Program – What are we delivering?

- **Muni Forward Quick Build Program**
- **Vision Zero Quick Build Program**
- **Major Streetscape Projects** – Folsom Howard Phase 1, 6th Street, Taylor Street, Hyde Street
- **LRV Replacement & Expansion**
- **Electric Bus Procurement**
- **Automatic Train Control System (ATCS)**
- **Better Market Street**
- **Muni Forward** – M-Oceanview TPP; K-Ingleside TPP; J-Church TPP; L Taraval, 22 Fillmore: 16th St
- **Accessible Pedestrian Signals**



SFMTA 5-Year Capital Improvement Program – Projects with Phase Funded

- Potrero Yard Modernization Project
- Presidio Facility Reconstruction
- Folsom-Howard Bids 2/3
- **Muni Forward** – N-Judah TPP, Embarcadero Pocket Track, 14 Mission TPP
- **Subway Mechanical Systems SGR Program**
- **Fire Life Safety SGR Program**
- **New Flyer Mid-Life Overhauls**



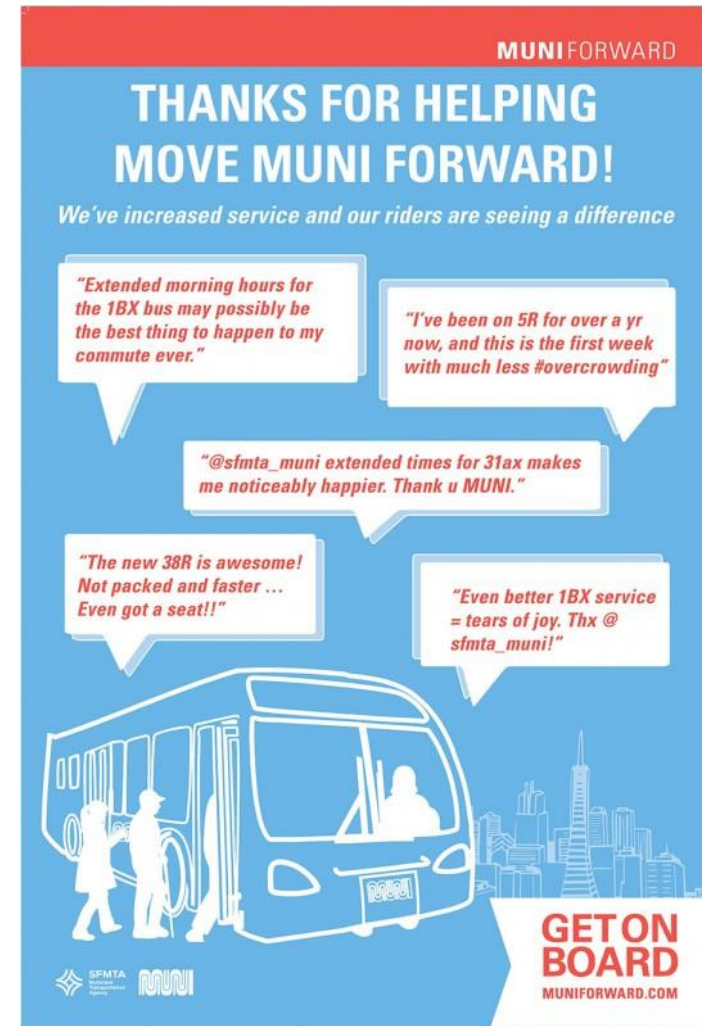
SFMTA 5-Year Capital Improvement Program – Muni Forward/Results

Between 2016 – 2018, ridership increased 14% on the Rapid Network.

- 8 Bayshore corridor: +12%
- Mission/Van Ness corridor: +9%
- Geary corridor: +8%
- 19th Ave corridor: +19%

Travel time savings of 10% or more were realized.

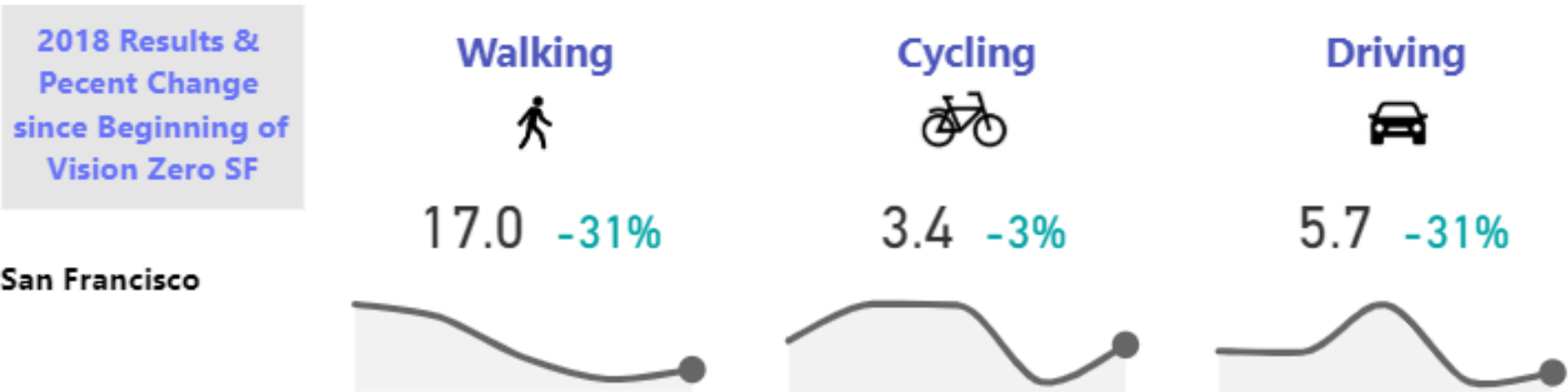
- Church Street: 15%
- 5R Fulton Rapid: 9-12%
- Mission: 13%
- 16th Street quick-build phase: 10%
- Potrero: 20%
- Two-Way Haight: Over 20%
- Sansome: Over 20%



SFMTA 5-Year Capital Improvement Program – Vision Zero/Results

Traffic Fatality Trends by Mode (2014-present)

The charts below track the number of fatalities by mode (adjusted per one million residents), and the percent change between 2014-2018 for San Francisco and the nine Vision Zero peer cities that reported 2018 data. San Francisco saw a slight increase in per capita fatalities for every mode compared to 2017. San Francisco tracks closely to the peer average in safety for cycling and walking, but notably performs better than its peer group in automotive fatalities.





SFMTA

Transportation: System **Financial** Update

- Addressing the Need
- Future Revenue Measures

Summary Needs

SFMTA 20-Year Capital Plan:	\$30.7 billion <i>needs</i>
CCSF 10-Year Capital Plan:	\$10.9 billion <i>deferred needs</i>
2018 SGR Backlog:	\$ 3.3 billion <i>backlog</i>
State of Good Repair:	\$756 million/annual eliminate backlog
	\$600 million/annual reduce backlog 50%

Transportation Task Forces – Revenue Measures/Past and Proposed Future



2014 Proposition A

General Obligation Bond
Passed – 71.9% yes
\$500 million/one-time

2014 Proposition B

General Fund Population Baseline
Passed – 61.4% yes
\$23 million/annually (est. at time)

Vehicle License Fee

Increase by 2% - Not Pursued
Estimate: \$73 million/annually



2016 Proposition J/K

3/4 cent Sales Tax
Prop J Dedication: Passed – 67.2% yes
Prop K Tax: Failed - 65.3% no
\$101.6 million/annually

2018 Proposition D

Ride Hailing Tax
Passed – 67.7% yes
\$15 million Transit/annually
\$15 million Vision Zero/annually

General Obligation Bond

\$500 million/one time (June 2022)

+ 1/4 Cent Sales Tax

\$51 million/annually (Estimated)

Congestion Pricing

\$80 million/annually (Estimated)

Community Benefit District

Varies Depending on District

Other opportunities:

Proposition K Sales Tax Reauthorization

\$100 million/annually (Post 2034)
Voter approval of a new 30-year expenditure plan
for the existing Proposition K 1/2 Transportation Sales Tax

Federal and State Grants

FTA Capital Investment Grant Program: \$200 million/one-time
State Transit and Intercity Rail Capital Program: \$120 million/one-time



Thank you.

**SFMTA**