

2016

ANNUAL  
REPORT



On the cover: The SFCTA led construction of new westbound I-80 on- and off-ramps for the San Francisco Oakland Bay Bridge at Yerba Buena Island, which were opened to traffic in October 2016. Photo by WMH Corp.

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**SAN FRANCISCO COUNTY TRANSPORTATION AUTHORITY**

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**TRANSPORTATION AUTHORITY  
CHAIR AARON PESKIN**

The Transportation Authority is the steering mechanism for San Francisco's sustainable and balanced growth strategies. Our planning, funding, and project delivery work impacts everyone,



from neighborhood Vision Zero projects to major regional connections. In 2016, we worked in partnership with the Metropolitan Transportation Commission and the Association of Bay Area Governments to update the Plan Bay Area (PBA), our region's smart growth blueprint. PBA forecasts 137,000 new households and almost 300,000 new jobs for San Francisco between 2010 and 2040, a tremendous challenge for San Francisco and our region to accommodate intelligently. Guided by our climate and equity goals, the Transportation Authority is focused on maintaining our existing transportation infrastructure and investing in our core systems—particularly transit, walking, and cycling—to keep the city livable, affordable, and safe. And we continue to lead in the creation of complete communities through transit-oriented development and anti-displacement programs. This kind of progress comes with its share of challenges, though. Our Muni bus times are unreliable, our streets are in a constant state of construction and disrepair, and in need of repaving; our neighborhoods continue to demand better outreach and accountability; and we continue to fall short of our Vision Zero goals to prevent traffic collisions and fatalities. To succeed, we must generate local and regional revenue and invest it responsibly. It requires making hard choices and being responsive to the communities we represent. I'm looking forward to making that happen with your help in 2017.

A handwritten signature in blue ink.

AARON PESKIN  
CHAIR

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**TRANSPORTATION AUTHORITY  
EXECUTIVE DIRECTOR  
TILLY CHANG**

2016 was an historic year for the Transportation Authority, with the delivery of our agency's first major capital project: the I-80 / Yerba Buena Island East Side Ramps. You can see the gracefully



designed west-bound on- and off- ramps on our cover, providing safe new access to Treasure Island and YBI. Delivered on-time and on-budget, this \$98 million project supports the creation of a sustainable new neighborhood on the Islands. To keep this and other neighborhoods across the city moving, we allocated or managed over \$850 million in Proposition K sales tax and other grants in 2016—to fund major capital projects like Muni's replacement bus and LRV fleet, Van Ness Bus Rapid Transit, Caltrain Electrification and the Transbay Terminal. We also supported planning efforts in every district through our popular Neighborhood Transportation Improvement Program and remained focused on safety through our Vision Zero Committee. In its capacity as the Treasure Island Mobility Management Agency, our board adopted initial tolling policies and we won a U.S. Department of Transportation grant to test autonomous shuttles on Treasure Island. With BART, we launched an innovative pilot to reduce peak crowding using rewards. Finally, after many years of planning and outreach, we selected a design for Geary BRT and envisioned the subways of the future with our partners at the SFMTA. Please read on for more great updates from the Transportation Authority.

A handwritten signature in blue ink.

TILLY CHANG  
EXECUTIVE DIRECTOR

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## ACRONYMS USED IN THIS REPORT

In each major section of the report, the full name is spelled out in the first occurrence.

**5YPP** 5-Year Prioritization Program

**ABAG** Association of Bay Area Governments

**ADA** Americans with Disabilities Act

**AC Transit** Alameda-Contra Costa Transit District

**BPCAC** Balboa Park Community Advisory Committee

**BART** Bay Area Rapid Transit

**BATA** Bay Area Toll Authority

**B-MAGIC** Bayview Hunters Point Mobilization for Adolescent Growth in our Communities

**BOS** (San Francisco) Board of Supervisors

**BRT** bus rapid transit

**BVHP** Bayview and Hunters Point

**C3** Central Control and Communications

**Caltrans** California Department of Transportation

**CBOSS** Communications-Based Overlay Signal System

**CCTV** Closed-Circuit Television

**CEQA** California Environmental Quality Act

**CMA** Congestion Management Agency

**CM/GC** Construction Management/General Contracting

**DBE** Disadvantaged Business Enterprise

**DPH** (San Francisco) Department of Public Health

**DTX** Caltrain Downtown Extension

**EIR** Environmental Impact Statement

**EIS** Environmental Impact Report

**EMU** electric multiple-unit

**FCMS** Freeway Corridor Management Study

**FTA** Federal Transit Administration

**FHWA** Federal Highway Administration

**GLC** Golden Link Concessionaire

**HEAL** Kaiser Healthy Eating Active Living

**ITS** Intelligent Transportation System

**LBE** Local Business Enterprise

**LTP** Lifeline Transportation Program

**LRV** light rail vehicle

**LTP** Lifeline Transportation Program

**MME** Muni Metro East

**MTC** Metropolitan Transportation Commission

**NTIP** Neighborhood Transportation Improvement Program

**OBAG** One Bay Area Grant Program

**OCC** Operations Control Center

**OEWD** Office of Economic and Workforce Development

**P3** public-private partnership

**PBA 2040** Plan Bay Area 2040

**PSR** Project Study Report

**PROP AA** Proposition AA

**PROP K** Proposition K

**PTC** Positive Train Control

**SBE** Small Business Enterprise

**SF-CHAMP** San Francisco Chained Activity Modeling Platform

**SFE** San Francisco Department of the Environment

**SFMTA** San Francisco Municipal Transportation Agency

**SFOBB** San Francisco Oakland Bay Bridge

**SFPUC** San Francisco Public Utilities Commission

**SFPW** San Francisco Public Works

**SFSU** San Francisco State University

**SFTP** San Francisco Transportation Plan

**SR2S** Safe Routes to School

**STIP** State Transportation Improvement Program

**TD&A** Technology, Data, and Analysis Division

**TDM** Transportation Demand Management

**TFCA** Transportation Fund for Clean Air

**TIDA** Treasure Island Development Authority

**TIMMA** Treasure Island Mobility Management Agency

**TJPA** Transbay Joint Powers Authority

**TSP** Transportation Sustainability Program

**TTC** Transbay Transit Center

**UCSF** University of California at San Francisco

**UDBE** Underutilized Disadvantaged Business Enterprise

**WETA** Water Emergency Transportation Authority

**YBI** Yerba Buena Island

THE 2016 TRANSPORTATION  
AUTHORITY BOARD  
AND ITS COMMITTEES

TRANSPORTATION AUTHORITY BOARD  
/TIMMA BOARD

Scott Wiener, TA BOARD CHAIR (JAN–NOV 2016)  
Aaron Peskin, TA BOARD CHAIR (DEC 2016–PRESENT)  
Eric Mar, TA BOARD VICE CHAIR  
Jane Kim, TIMMA BOARD CHAIR  
John Avalos, TIMMA BOARD VICE CHAIR  
London Breed  
David Campos  
Malia Cohen  
Mark Farrell  
Katy Tang  
Norman Yee

FINANCE COMMITTEE

Eric Mar, CHAIR  
Malia Cohen, VICE CHAIR  
David Campos  
Jane Kim  
Norman Yee

PLANS AND PROGRAMS COMMITTEE

Katy Tang, CHAIR  
Mark Farrell, VICE CHAIR  
John Avalos  
London Breed  
Aaron Peskin

VISION ZERO COMMITTEE

Norman Yee, CHAIR  
Jane Kim, VICE CHAIR  
David Campos

PERSONNEL COMMITTEE

Scott Wiener, CHAIR  
Katy Tang, VICE CHAIR  
Eric Mar

TIMMA COMMITTEE

Jane Kim, CHAIR  
John Avalos, VICE CHAIR  
David Campos

CITIZENS ADVISORY COMMITTEE

Chris Waddling, CHAIR  
Peter Sachs, VICE CHAIR  
Myla Ablog  
Becky Hogue  
Brian Larkin  
John Larson  
Santiago Lerma  
John Morrison\*  
Jacqueline Sachs  
Peter Tannen  
Shannon Wells-Mongioli  
Bradley Wiedmaier  
Wells Whitney\*

GEARY BUS RAPID TRANSIT  
CITIZENS ADVISORY COMMITTEE

Cyndi Bakir  
Margie Hom Brown\*  
Asher Butnik  
Paul Chan  
Joanna Fong  
Jonathan Foerster\*  
Peter Gallotta  
Richard Hashimoto  
Benjamin Horne  
Jolsna John  
Angela Paige Miller  
Winston Parsons  
William Newsom  
Alexander Post  
Kevin Stull

\*served part of 2016

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## THE VOTERS' MANDATE

- 65.5% Transit
- 8.6% Paratransit
- 24.6% Streets and Traffic Safety
- 1.3% Transportation System Management and Strategic Initiatives

The 30-year Prop K Expenditure Plan, approved by San Francisco voters in November 2003, determines how funds generated by Prop K's half-cent local transportation sales tax must be spent. The Expenditure Plan includes specific projects and programs and stipulates the percentages of total revenues that must be spent on different kinds of improvements.



This Annual Report, prepared in fulfillment of statutory and Expenditure Plan requirements, details the Transportation Authority's progress in delivering the local transportation sales tax program and vehicle registration fee program over the previous twelve months. It also provides an overview of progress in delivering programs and projects paid for with other funds under the Transportation Authority's jurisdiction.

DATE OF PUBLICATION: JANUARY, 2017

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## OUR MISSION

### OPTIMIZE MOBILITY IN SAN FRANCISCO

The San Francisco County Transportation Authority (Transportation Authority) is the sub-regional transportation planning and programming agency for San Francisco County. Originally created to administer the proceeds of Proposition B—the first local sales tax for transportation, approved by the voters in 1989—the

Transportation Authority has since been asked to take on a number of additional roles and responsibilities, mandated by state law. These new roles complement the agency’s original purpose and contribute to its increased effectiveness. On April 1, 2004, the Transportation Authority became the administrator of the Prop K half-cent sales tax for transportation, which San Francisco voters approved in November 2003, and which superseded Proposition B.

Pursuant to state law, the Transportation Authority is a separate legal entity from the City and County of San Francisco, with its own staff, budget, operating rules, policies, board, and committee structure. The Transportation Authority’s borrowing capacity is separate and distinct from that of the City and County of San Francisco.

#### ROLE

#### WHAT WE DO

##### PROP K ADMINISTRATOR

Prop K is the local sales tax for transportation approved by San Francisco voters in November 2003. The 30-year Expenditure Plan prioritizes \$2.35 billion (in 2003 dollars) and leverages another \$9 billion in federal, state, and local funds for transportation improvements.

Administer the tax. Allocate funds to eligible projects. Monitor and expedite the delivery of Prop K projects. Prepare the Strategic Plan to guide the timing of Prop K expenditures and maximize leveraging. Advance project delivery through debt issuance and funding strategy.

##### CONGESTION MANAGEMENT AGENCY (CMA)

State legislation establishing Congestion Management Agencies was adopted in 1989. The Transportation Authority was designated as the CMA for San Francisco County in 1990.

Prepare the long-range Countywide Transportation Plan for San Francisco. Gauge the performance of the transportation system. Prioritize and recommend local projects for state and federal funding. Help local agencies compete for discretionary funds and support delivery.

##### TRANSPORTATION FUND FOR CLEAN AIR (TFCA) PROGRAM MANAGER

Funds come from a \$4 per year vehicle registration fee used for projects that help clean up the air by reducing motor vehicle emissions. The Transportation Authority was designated San Francisco program manager in 1992.

Prioritize projects for San Francisco’s local share of TFCA funds. Help local agencies compete for regional discretionary TFCA funds. Oversee implementation of TFCA projects in San Francisco.

##### PROP AA ADMINISTRATOR

State legislation, adopted in 2009, enabled CMAs to establish up to a \$10 countywide vehicle registration fee to fund transportation projects having a relationship or benefit to the people paying the fee. San Francisco voters approved Prop AA in November 2010, designating the Transportation Authority as the administrator of the \$10 fee.

Administer the fee. Allocate funds to eligible projects. Monitor and expedite delivery of Prop AA projects. Prepare the Strategic Plan to guide the timing of Prop AA expenditures and maximize leveraging.

##### TREASURE ISLAND MOBILITY MANAGEMENT AGENCY (TIMMA)

Designated Treasure Island Mobility Management Agency in 2014. State legislation, passed in 2008, enables TIMMA to implement congestion pricing on the island.

Plan for sustainable mobility on Treasure Island. Coordinate new ferry and regional bus service, on-island shuttle, bike share, and car share opportunities. Implement congestion pricing.

# PLAN



# PLAN

## VISION ZERO

EFFORTS CONTINUE  
TO ACHIEVE VISION ZERO

In 2014, San Francisco became a Vision Zero City vowing to eliminate all road deaths by 2024 through education, enforcement, and road infrastructure redesign. This year, San Francisco continued to support programs and efforts that ensure safety for all users of transportation. There are 57 Vision Zero priority programs and projects underway, 29 of which reached key milestones in 2016 (see [visionzero.sf.org](http://visionzero.sf.org) for project details and status). Advocacy and legislative efforts in 2016 were focused on automated speed enforcement and building the coalitions needed to advance enabling legislation next year. Locally, anti-speed campaigns intensified, as did focused enforcement on the top five violations: speeding,

running red lights, running stop signs, failing to yield to pedestrians, and failing to yield while turning. The City also expanded outreach efforts to vulnerable populations of seniors and children. Last summer, the City's commitment to Vision Zero was bolstered by the Mayor's Executive Directive that tasked City departments with accelerating street safety projects and integrating more protected bicycle lanes throughout San Francisco. In early 2017, the City will release an updated Vision Zero Two-Year Action Strategy, with an emphasis



on engaging the community and promoting equity to address safety concerns for the most vulnerable communities in San Francisco.

Road infrastructure design aimed at improving safety is a key element of San Francisco's Vision Zero policy. ▶





# GEARY CORRIDOR BUS RAPID TRANSIT PROJECT

FINAL ENVIRONMENTAL IMPACT  
REPORT COMPLETE; INITIAL-PHASE  
IMPROVEMENTS UNDER DESIGN

Reaching a major project milestone in 2016, the Transportation Authority released the Geary Corridor Bus Rapid Transit (BRT) Project Final Environmental Impact Report, and subsequently approved it in January 2017. The project will provide a cost-effective way to improve bus service and enhance safety in the Geary corridor from Downtown to the Outer Richmond. Together with San Francisco Municipal Transportation Agency (SFMTA), the Transportation Authority,

through an outreach process that included engagement with more than sixty-five community groups, developed a BRT design during the project’s environ-

mental phase that meets the needs of stakeholders throughout the corridor. Following the release of the draft environmental report in late 2015, the project team reviewed and responded to nearly 300 public comments on the document. The two agencies met with many of the commenters to develop solutions to issues they identified, resulting in several project changes to improve pedestrian safety and maintain business access to parking and loading spaces. The team also coordinated with the Federal Transit Administration (FTA) on the federal environmental approval process, which is expected to be completed in early 2017. The recommended Geary BRT design will bring quicker and more reliable bus service, safety improvements, and infrastructure upgrades to the 6.2 mile-long corridor.



▲ Key project features of the Geary Corridor BRT project (seen in this rendering) include accessible bus stops, safer pedestrian crossings, and boarding islands.

Existing “red carpet” bus-only lanes Downtown (like those shown in the photo) will connect to new red lanes on Geary as part of the BRT project. ►



# PLAN

## LATE NIGHT TRANSPORTATION STUDY

RECOMMENDATIONS RELEASED  
FOR ALL-NIGHT TRANSIT SERVICE  
IMPROVEMENTS

The Transportation Authority, San Francisco Entertainment Commission, and the Office of Economic and Workforce Development (OEWD) reached key milestones on several initiatives identified in the 2015 Late Night Transportation Plan to improve service, accessibility, reliability, and safety for those who are working or playing after nightfall or before daybreak. In collaboration with transit operators, the Transportation Authority developed a prioritized set of recommended changes and expansions to the network of All-Nighter transit service provided by the SFMTA, AC Transit, and SamTrans. These improvements are designed to better match the service provided to areas with the greatest need, particularly among workers who rely on transit to reach jobs in San Francisco and around the region. We also developed a plan



for ongoing monitoring of late night transportation system performance, including service reliability and ridership, as part of the agency's biennial Congestion Management Program. Meanwhile, the Transportation Authority coordinated with OEWD to launch an information campaign to increase awareness of late-night transit service and began an assessment of neighborhood improvement needs in a pilot nightlife district, the

Lower Polk neighborhood. We will continue to work with partner agencies in 2017 to implement these exciting initiatives.

## SAN FRANCISCO BAY AREA CORE CAPACITY TRANSIT STUDY

MULTI-AGENCY COLLABORATION  
TO IDENTIFY NEAR-, MID-, AND  
LONG-TERM TRANSIT IMPROVEMENTS  
FOR THE TRANSBAY AND  
MUNI METRO CORRIDORS

The construction cranes that grace our skyline are just one visible symbol of our strong economy and of the city's development plans coming online after years of planning. Another very real sign is the daily crowding on Bay Area Rapid Transit (BART) and Muni, which continue to experience ridership at all-time high levels. To address this issue, the Transportation Authority has partnered with the Metropolitan Transportation Commission (MTC), the SFMTA, BART, AC Transit, Water Emergency Transportation Authority, and Caltrain to conduct a planning study focusing on coordinating transit service to San Francisco's core, including the Transbay and Muni Metro corridors. The study has provided the basis for a crowding-and-capacity strategy within the Plan Bay Area update (due to be



▲ Core Capacity Transit Study will focus on coordinating transit service to San Francisco's core.

adopted in Summer 2017) and catalyzed funding for near-term improvements such as alternative seat configurations on BART and funding purchase of additional AC Transit transbay buses. By the time of its conclusion in Spring 2017, the study will recommend further short- and medium-term projects, as well as provide a framework for ongoing long-term planning that may lead to a new transbay transit crossing. The study is funded with a \$1 million federal Transportation Investment Generating Economic Recovery grant and \$1 million in local match from the project partners (including Prop K).

## BART PERKS

INNOVATIVE PROGRAM TESTS THE EFFECTIVENESS OF SMALL CASH REWARDS TO SHIFT TRAVEL TIMES AND REDUCE CROWDING

BART Perks explored new ways to reduce crowding during the morning peak. ▶

At the end of August 2016, the Transportation Authority, in partnership with BART, launched the BART Perks six-month test program. The test program's goal is to reduce crowding by offering riders incentives for traveling outside of the morning peak hour. Riders earn points for every trip on BART and earn extra points for starting their trip during the shoulders of the peak period, known in the program as "bonus hours." At the end of each month, riders can redeem points for small cash rewards. Enrollment grew rapidly after the launch, reaching 10,000 by the end of the first week and surpassing 17,000 by the end of the year. Nearly \$95,000 in rewards have been distributed in the first few months. The BART Perks test program will continue through February 2017, after which staff will complete an evaluation and determine whether to pursue similar programs of this type in the future. The test program is primarily funded by a \$508,000 Federal Value Pricing Program grant with additional support from BART operating funds and the Prop K sales tax. More information is available on the program website at [bartperks.com](http://bartperks.com).



# PLAN

## TREASURE ISLAND MOBILITY MANAGEMENT PROGRAM

BOARD APPROVES PRELIMINARY CONGESTION TOLL POLICIES



▲ A new ferry terminal is envisioned as part of Treasure Island's transportation plan.

## SAN FRANCISCO FREEWAY CORRIDOR MANAGEMENT STUDY

EXPLORATION OF STRATEGIES TO IMPROVE CONDITIONS FOR US 101, I-280 TRAVELERS ADVANCES

The Treasure Island Mobility Management Agency (TIMMA) adopted preliminary congestion toll policies in 2016. The planned congestion toll is one element of the integrated, multimodal Mobility Program that will support the redeveloped island. The program proposed 8,000 homes, 500 hotel rooms, and 550,000 square feet of office and retail space. It also includes expanded transit service, parking management, and resident and employer transportation demand management (TDM) programs. The recommendations, adopted as the Treasure Island Mobility Management Study, include a Transportation Affordability Program for current and future residents in below-market-rate housing on the island, in response to Board and community input. Also in 2016, we developed a final Concept of Operations, which describes the components of the toll system and how it will operate; and drafted agreements with our partner agencies such as ferry and east bay bus transit operators. Finally, we initiated transportation demand and financial forecasting of the program focused on the first five years of program operations. The results of this analysis will guide the final program policies and business rules that are anticipated to be adopted in 2018. We are working toward an anticipated program launch in 2019 to correspond to the first phase of development on the island.

The San Francisco Freeway Corridor Management Study (FCMS), as one of the key recommendations from the 2013 San Francisco Transportation Plan (SFTP), is exploring strategies to manage travel in the US 101 and I-280 corridors in San Francisco. These two heavily-traveled regional routes will see large increases in demand with projected jobs and housing growth. The study focuses on applying technology and efficiency-related approaches to improve the throughput of

the existing facilities, such as managed lanes for high-occupancy vehicles.

In 2016, the study began a multi-faceted technical analysis of potential improvements based on the Vision and Goals adopted by the Transportation



Authority Board in 2015. Additionally, with the recognition that freeway travel in the Bay Area does not start and stop at county lines, the study began coordination with partners in San Mateo County to plan for a continuous freeway management scheme along the entire US 101 corridor.

After sharing an existing conditions analysis with the Board in Fall 2016, the FCMS team is proceeding with an evaluation of improvements to address existing and future conditions. In 2017, staff will conduct community outreach and identify potential scenarios for managed lanes.

The study is funded by Prop K and the Caltrans Partnership Planning for Sustainable Transportation grant program.

## TRANSPORTATION SUSTAINABILITY PROGRAM

A COMPREHENSIVE APPROACH TO MAINTAINING MOBILITY AS SAN FRANCISCO GROWS

The TSP has three components tied to new development's role in supporting the city's transportation needs. ▼

The Transportation Sustainability Program (TSP) is a joint effort between the San Francisco Planning Department, the Transportation Authority, OEWD, and the SFMTA. The program takes a comprehensive approach to new development's role in supporting the transportation needs of San Francisco. The TSP is comprised of three components: Expanding the transportation development fee to help fund transit and safer streets; making the development review process align with the City's longstanding environmental policies by changing how we analyze the transportation impacts of new development under the California Environmental Quality Act (CEQA); and that ensuring developers include on-site transportation amenities (through TDM programs) that reduce reliance on driving. The Board of Supervisors (BOS) approved the first component in 2015 through the Transportation Sustainability Fee. In March 2016, the San Francisco Planning Commission approved the second when it adopted a resolution to move forward with state-proposed guidelines that modernize the way City officials measure the transportation impacts of new development. This will remove automobile delay as a significant impact on the environment and replace it with a vehicle miles traveled threshold for all CEQA environmental determinations. In early 2017, the BOS expects to consider adoption of a TDM Ordinance applied to new development which would approve the third component of the TSP.

process align with the City's longstanding environmental policies by changing how we analyze the transportation impacts of new development under the California Environmental Quality Act (CEQA); and that ensuring developers include on-site transportation amenities (through TDM programs) that reduce reliance on driving. The Board of Supervisors (BOS) approved the first component in 2015 through the Transportation Sustainability Fee. In March 2016, the San Francisco Planning Commission approved the second when



# PLAN

## PARKING SUPPLY AND UTILIZATION STUDY

STUDY EVALUATES EFFECTIVENESS OF VARIOUS PARKING POLICIES ON AREAWIDE CONGESTION

Through the Parking Supply and Utilization Study, we examined the effect of parking regulatory and pricing policies on area-wide congestion as another set of tools in our toolbox to help manage congestion. The study, adopted by the Transportation Authority and accepted by the Federal Highway Administration in 2016, built upon previous efforts to estimate the total non-residential parking supply both for downtown and citywide. Knowing the estimated parking supply has provided helpful background parking rates to support the Transportation Sustainability Program (see page 11). The study found that parking-based approaches to managing area wide congestion were not as effective as the cordon-based approach studied under the Transportation Authority's Mobility, Access, and Pricing Study (2010). Rather than continue development of the strategies studied, we recommend pursuing other parking- and pricing-related strategies currently underway, such as the Residential Parking Permit Evaluation and Reform Project being led by the SFMTA, the Treasure Island Mobility Management Program (see page 10), and the Freeway Corridor Management Study (see page 10). The study was funded by grants from the Federal Value Pricing Pilot Program, the MTC and Prop K.



## BAYVIEW MOVES

COMMUNITY SHUTTLE SERVICE LAUNCHES

In 2016, the Bayview Moves Community Advisory Board launched a new, innovative vehicle-sharing program to enhance access to programs and services based in the Bayview Hunters Point (BVHP) neighborhoods. The program was recommended in the Transportation Authority's BVHP Mobility Solutions Study, adopted in 2013. The Community Advisory Board consists of several community-based organizations that serve the BVHP neighborhood. The program operates in a similar way to car sharing, providing access to vehicles such as vans and small shuttle buses on an as-needed basis. This allows member organizations to expand access for their clients while more efficiently using funding spent on transportation. The Transportation Authority led the business plan development, partnering with the San Francisco Department of Public Health and Kaiser Healthy Eating Active Living (HEAL) Zone

initiative, Bayview Hunters Point Mobilization for Adolescent Growth in our Communities (B-MAGIC), a number of community-based organizations, and UCSF's SF Health Improvement Partnerships. A Prop K grant provides matching funding to a larger Kaiser Foundation grant along with contributions from the community-based organizations. Transportation Authority staff provides technical support as needed.

## CHILD TRANSPORTATION STUDY

RESEARCH FOCUSES ON SCHOOL  
COMMUTE PATTERNS AND IDENTIFIES  
OPPORTUNITIES FOR IMPROVEMENTS

Initiated at the request of Commissioner Katy Tang, the Child Transportation Study was led by the Transportation Authority, the Mayor's Office, and the SFMTA. The goal was to provide more in-depth and comprehensive information on school transportation issues in San Francisco and to identify potential solutions to help mitigate school commute difficulties. The study was informed by a review of existing data sources, focus groups, and an in-depth survey of over

1,700 parents of Kindergarten through 5th grade children in both public and private schools. The research revealed that auto is the dominant school commute mode, with relatively low utilization of walking and biking. Furthermore, it found that school commutes are surprisingly long and complicated because they are often coordinated with other activities such as parents' or caregivers' work commutes and aftercare needs. The study identified that the high share of auto usage results in congestion impacts focused around school sites at specific times of day, although the overall contribution to city-wide congestion is marginal. Most critically, the study revealed a relatively high level of dissatisfaction with school commutes, with over 60% of parents either actively seeking or being open to school commute alternatives. The study, funded by Prop K and the SFMTA, concludes with a set of recommendations addressing all school commute travel modes.



# PLAN

## COMMUTER SHUTTLES HUB STUDY

STUDY EVALUATES POTENTIAL HUB-BASED APPROACH



The study revealed tradeoffs between hub scenarios and current program. ▲

## I-280 INTERCHANGE MODIFICATIONS AT BALBOA PARK

RAMP RECONFIGURATIONS TO PRIORITIZE PEDESTRIAN AND BICYCLE SAFETY



In November 2015, the SFMTA Board approved a program to regulate privately-operated commuter shuttle buses within San Francisco. The program incorporated recommendations from the evaluation of a Pilot Program in operation since August 2014. During the environmental review process for the new program, members of the BOS encouraged the SFMTA, in collaboration with the Transportation Authority, to explore an alternative reduced-stop, hub-based approach to

the current Commuter Shuttle Program. The SFMTA and the Transportation Authority staff conducted the study, using data from our travel demand model, and released the resulting report in November 2016. The analysis reveals several tradeoffs between hub scenarios and the current program. While a

hub-model may result in less shuttle vehicle travel on the city's surface streets, the study predicts a 24–45% drop in shuttle ridership, with nearly all of those riders switching to driving. The increase in driving would likely lead to increases in injuries due to the correlation of increased vehicles miles travelled and vehicle crashes. The SFMTA will use the findings from this study along with findings from a recently-completed six-month review of the Commuter Shuttle Program to inform a proposal to the SFMTA Board for a reauthorization of the program, which expires in March 2017.

The Transportation Authority continued design and environmental work to realign the southbound I-280 Ocean Avenue off-ramp from a high-speed merge onto local streets into a signal-controlled T-intersection. This modification will enhance pedestrian and bicyclist safety by reducing conflicts with auto traffic exiting the freeway. Early in 2016, we entered a cooperative agreement with Caltrans, and expect to complete environmental clearance and Caltrans project approval in

Spring 2017. With the detailed design and construction phases each expected to last one year, the project could be completed by 2019. In parallel, we are conducting a Ramp Closure Analysis for the potential closure of the northbound I-280 Geneva on-ramp, which will need to be reviewed by the Federal Highway Administration (FHWA) for concurrence prior to further project development. As part of the project, we are working with SFMTA staff regarding effects to transit operations, with San Francisco Community College regarding their campus master planning efforts, and with the Balboa Park Station Area Community Advisory Committee (BPCAC) for community input and concurrence.



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## CALTRAIN QUINT BRIDGE REPLACEMENT and QUINT-JERROLD CONNECTOR ROAD

AGING RAIL BRIDGE REPLACED;  
PRELIMINARY DESIGN AND  
ENVIRONMENTAL WORK  
ON THE CONNECTOR ROAD CONTINUE



Connector road construction could begin in 2018, pending final acquisition of the land. ▲

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## CONNECT SF, SUBWAY VISION, AND THE SAN FRANCISCO TRANSPORTATION PLAN

CONNECT SF ASKS WHAT  
TRANSPORTATION FUTURE WE WANT  
FOR SAN FRANCISCO. SUBWAY VISION  
PROVIDES FRAMEWORK FOR MAJOR  
TRANSIT INVESTMENTS

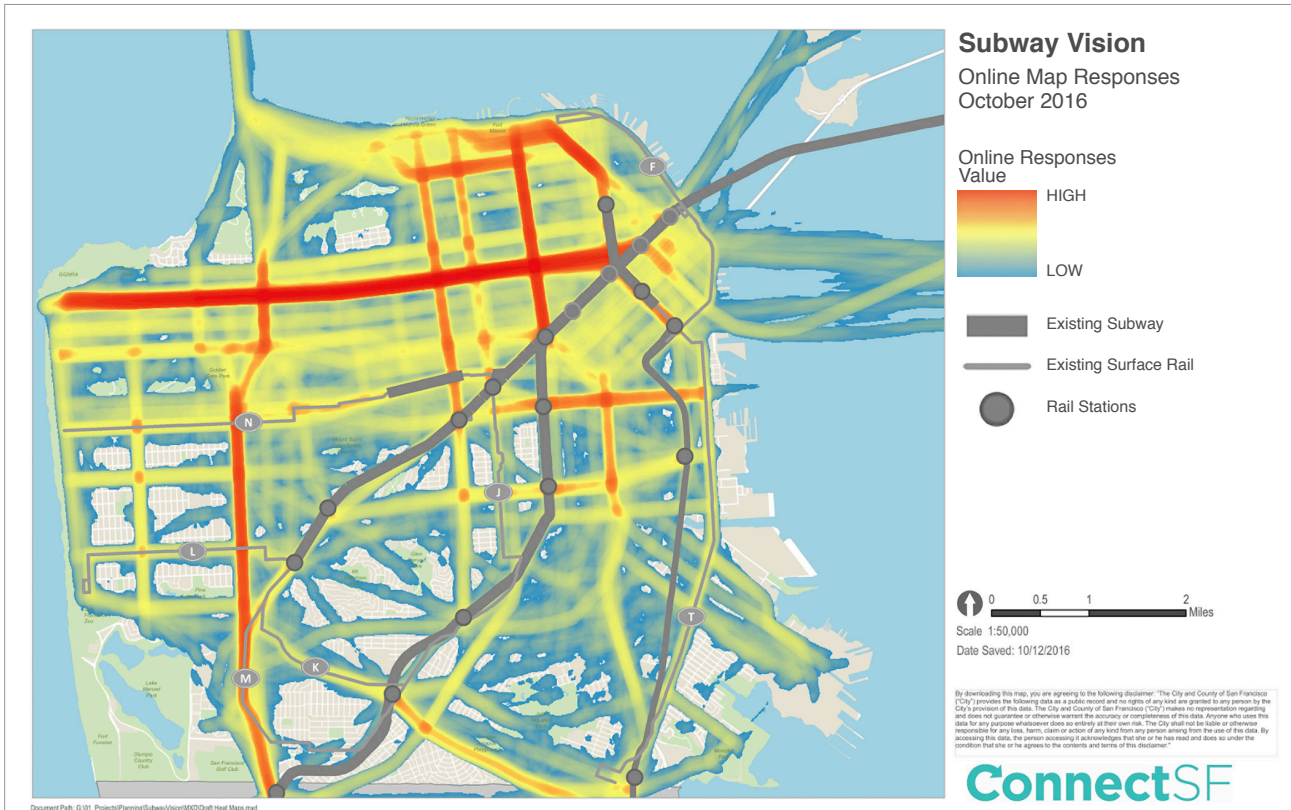
In the Bayview, two projects continue to advance that will allow for a potential future Caltrain Station at Oakdale Avenue. Caltrain completed replacement of the aging rail bridge over Quint Street with a berm, which closed through access on Quint Street between Oakdale and Jerrold Avenues. The berm is enabling safer rail service now and has the capacity to accommodate future station platforms. The Transportation Authority is working with San Francisco Public Works, the SFMTA, and the San Francisco Planning Department to advance conceptual design for the Quint-

Jerrold Connector Road. The San Francisco Real Estate Division is in negotiations with Union Pacific Railroad for acquisition of the land for the road. The Transportation Authority is also coordinating the project with the San Francisco Public Utilities Commission and SF Wholesale Produce Market, both of whom have projects nearby. The Transportation Authority has also been communicating with local Bayview groups on the status of the project. Construction of the connector road could begin in 2018.

Connect SF is a long range effort to define the desired and achievable transportation future for San Francisco. Launched in 2016, it is a partnership of San Francisco's key planning and transportation agencies and the Mayor's Office, including the Transportation Authority, the SFMTA, San Francisco Planning, and OEWD. The effort will produce a roadmap to arrive at that future, including policies, planning, project development, and funding strategies. The key outputs for the program include a vision document, a long-term transit study, a freeway and street traffic management study, a major update to the SFTP, and an

update to the Transportation Element of the San Francisco General Plan. The Connect SF team has developed a scenario-planning approach that will engage a diverse set of stakeholders to understand potential future alternatives. In 2017, this process will produce an agreed upon 50-year vision

# PLAN



Subway Vision team collected more than 2,600 ideas from San Franciscans about where they wanted to see new subway lines. ▲

for transportation that will inform all of the components described above.

In 2016, the Connect SF agencies produced a Subway Vision in response to a Board of Supervisors ordinance mandating that the City have a planning document for future subway expansion. The Subway Vision explored the existing and future needs of the subway system, along with an analysis of the benefits and costs of a complete subway network. The agencies received input from the public on where they would like to see the next subway routes and stations using an online mapping tool as well as popup feedback stations in three San Francisco neighborhoods. This will serve as an input to the Connect SF long-term transit study.

In parallel, we have also been developing a minor, focused update of the SFTP that will refresh revenue forecasts and project priorities, identify progress since the 2013 SFTP, and highlight transportation and land use trends that may shape our future. This focused SFTP update helped inform San Francisco's inputs to the Plan Bay Area 2040 update (see page 17), which MTC will adopt in mid-2017. The Transportation Authority will adopt this focused SFTP update in 2017 as well.

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## PLAN BAY AREA 2040

ADVANCING SAN FRANCISCO'S  
TRANSPORTATION INVESTMENT  
PRIORITIES

After a busy year for regional planning, the MTC and the Association of Bay Area Governments (ABAG) approved the transportation investment and land use scenario for Plan Bay Area 2040 (PBA 2040) in November. PBA 2040 updates the Bay Area's Regional Transportation Plan/Sustainable Communities Strategy, adopted in 2013. The plan sets policy for how federal, state, and regional transportation funding will be distributed within the nine-county region to support the long-range vision.

After a busy year for regional planning, the MTC and the Association of Bay Area Governments (ABAG) approved the transportation investment and land use scenario for Plan Bay Area 2040 (PBA 2040) in November. PBA 2040 updates the Bay Area's Regional Transportation Plan/Sustainable Communities Strategy, adopted in 2013. The plan sets policy for how federal, state, and regional transportation funding will be distributed within the nine-county region to support the long-range vision.

The Transportation Authority played an important role establishing San Francisco's transportation investment priorities in coordination with other city and regional agencies, including the SFMTA, San Francisco Planning, and the Mayor's Office. PBA 2040 included all the transportation projects the Transportation Authority submitted for consideration, making these projects eligible to seek state and federal funding. It also reflected our commitment to transit and local streets and roads maintenance, core capacity transit improvements, and Vision Zero.

PBA 2040 identified housing affordability and displacement as one of the region's most pressing concerns and one with significant impacts on the transportation system. In 2017, we will work with our City partners, regional agencies and advocacy organizations to develop a housing action plan that identifies strategies to address the housing crisis.

PBA 2040 is undergoing environmental review in Winter/Spring 2017 and is expected to be adopted in Summer 2017.



# PLAN

## TRAVEL ANALYSIS TOOLS

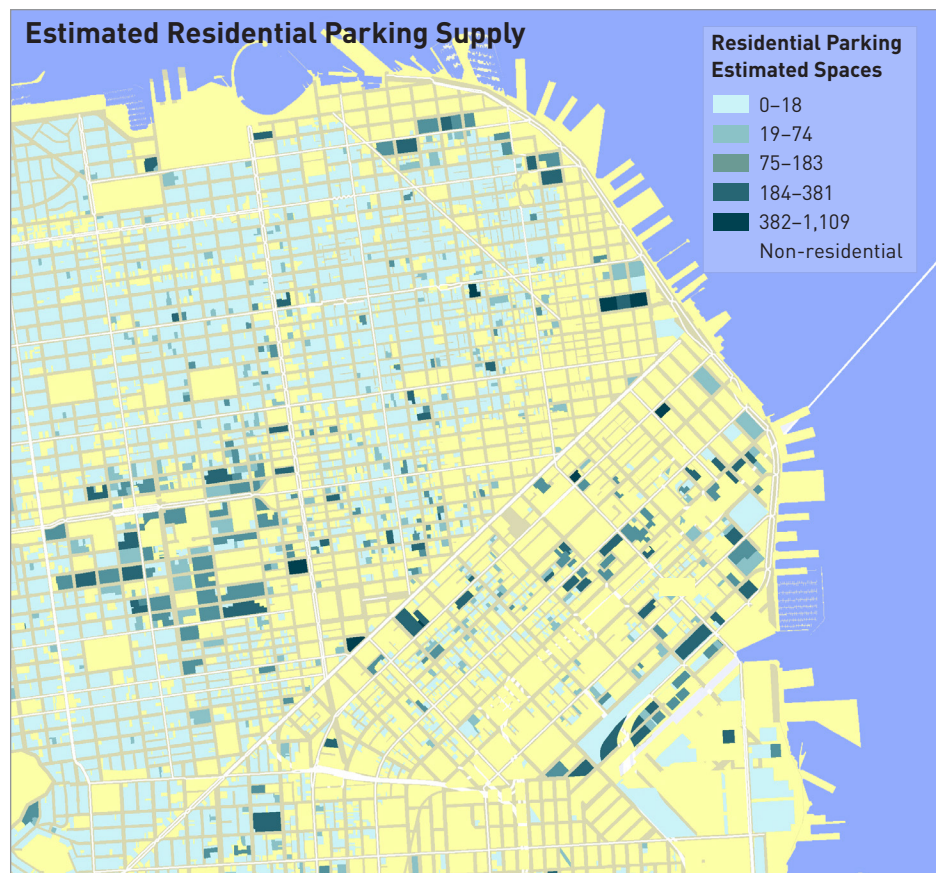
NEW FEATURES ENABLE ANALYZING WEEKEND TRAVEL DEMAND AND SPECIAL EVENTS

The San Francisco Chained Activity Modeling Platform (SF-CHAMP) travel model is one of the key tools the Transportation Authority uses to help forecast future travel demand and analyze impacts of potential projects and policies on travel to, through, and within San Francisco. Already a nationally recognized travel model, the Transportation Authority's Technology, Data and Analysis Division (TD&A) continually works to improve the model's ability to support San Francisco

planning efforts. In 2016, TD&A completed refinements that include updated travel data, as well as new features such as the ability to estimate weekend travel demand and demand associated with special events. Both of these new capabilities have been used to support Treasure Island planning activities. Other significant travel modeling projects in 2016 included forecasting for the Core Capacity Transit Study and the Freeway Corridor Management Study.

Two other major model development efforts continued in full force in 2016. In partnership with several other agencies, TD&A continued to work on a \$700,000 FHWA grant to bring a transit simulation tool from research into use by 2016. This tool will allow for a multitude of transit policy analyses. The second project, also in partnership with several other agencies, is working towards a unified software platform for travel models. This will bring our 2000-era code base into a modern programming language, which will allow SF-CHAMP to be more easily updated in the future.

This map shows the results of work the TD&A Division has done to estimate residential parking supplies throughout the city. ▶



# FUND



# FUND

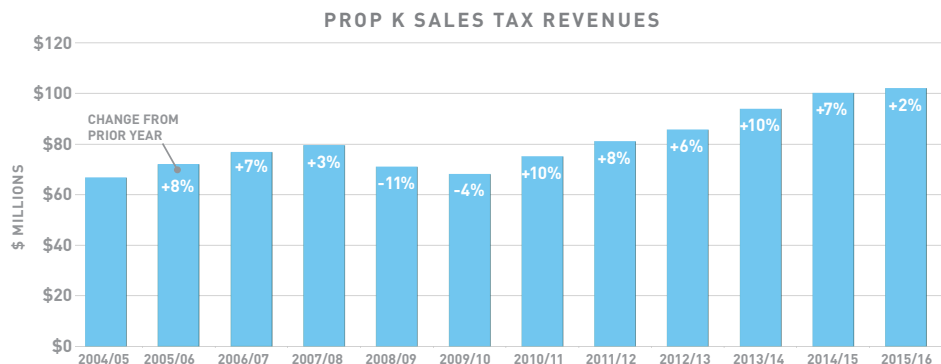


## PROP K LOCAL HALF-CENT TRANSPORTATION SALES TAX

OVER \$1.5 BILLION IN PROP K SALES TAX FUNDS DIRECTED TOWARD IMPROVEMENTS IN NEIGHBORHOODS CITY-WIDE

Whether you are a San Francisco resident, student, worker, or visitor, it is likely you have experienced a Prop K-funded transportation improvement. Prop K, a half-cent local sales tax for transportation that was approved by San Francisco voters in November 2003, is used to fund everything from traffic signals to streetcars, bicycles to boulevards, and pedestrian safety improvements to paving. The voter approved Expenditure Plan contains a combination of named projects—such as the Central Subway and Presidio Parkway—and 21 programmatic categories such as transit vehicle replacement, new signals and signs, traffic calming, and bicycle circulation and safety.

To provide a clear road-map to deliver the Prop K program, every four years we work with project sponsors such as the San Francisco Municipal Transportation Agency (SFMTA), San Francisco Public Works (SFPW), and the Bay Area Rapid Transit District (BART), and engage in a public outreach process to update the Prop K Strategic Plan and to develop 5-Year Prioritization Programs (5YPPs) for the programmatic categories.



Through 2016, the Transportation Authority has allocated over \$1.5 billion to plan, design, and implement the projects and programs included in the voter-approved Expenditure Plan. That investment is multiplied several times over as Prop K funds provide local match to federal, state, and other funds—with each Prop K dollar often leveraging \$4 to \$7 in other funds.



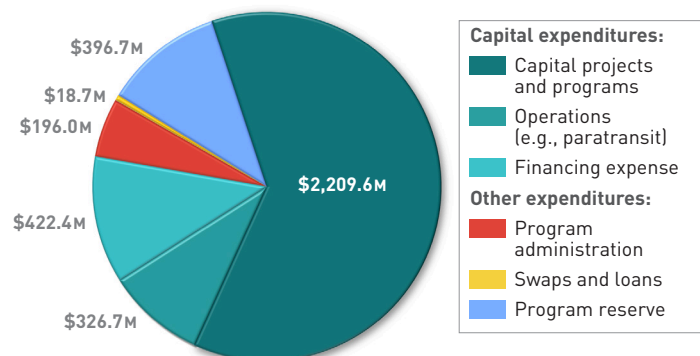
The Prop K Strategic Plan (last updated in 2014) reconciles the timing of expected Prop K revenues with the schedule for when project sponsors need those revenues, sets policy for the administration of the program to ensure prudent stewardship of taxpayer funds, and provides a solid financial basis for the issuance of future debt as needed to accelerate delivery of benefits to the public. In 2014, the Transportation Authority Board approved updates for all 21 of the Prop K 5YPPs, identifying the projects that will receive Prop K funding in Fiscal Years 2014/15 through 2018/19. To see the approved 5-year project lists, visit our website ([www.sfcta.org](http://www.sfcta.org)). Visit the MyStreetSF interactive project map ([www.mystreetSF.com](http://www.mystreetSF.com)) to see Prop K and other Transportation Authority-funded projects in your neighborhood, or where you work, play, or attend school in the city.

### Prop K Allocations

In 2016 the Transportation Authority allocated over \$158 million in Prop K sales tax funds to projects large and small throughout the city, and achieved the milestone of \$1 billion in reimbursements for work completed since the inception of the Prop K program. 2016 allocations directly leveraged over \$470 million in non-Prop K funds. Muni’s ongoing fleet replacement effort continued to be a major focus of Prop K grants in 2016, with \$48 million dollars allocated for procurement of 148 hybrid diesel motor coaches, \$5 million for 14 articulated 60-foot electric trolley coaches, and \$700,000 for 27 paratransit vans. Bus rapid transit (BRT) projects were awarded almost \$26 million in Prop K grants, as Van Ness BRT entered the construction phase and Geneva-Harney BRT entered the environmental phase. 2016 saw an increased focus on upgrades to the facilities that support SFMTA operations, with almost \$19 million in Prop K grants for projects such as worker fall protection at eight facilities and capacity improvements at the Muni Metro East light rail vehicle center. Caltrain state of good repair projects received over \$10 million with additional funds for Caltrain electrification.

Approximately 45 smaller grants accounted for \$11 million in 2016 Prop K allocations, including traffic calming, new and upgraded traffic signals, street repair and cleaning equipment, pedestrian and bicycle safety improvements,

2014 PROP K STRATEGIC PLAN EXPENDITURES  
AMENDMENT 6 (JUNE 2016), IN YEAR OF EXPENDITURE DOLLARS (MILLIONS)

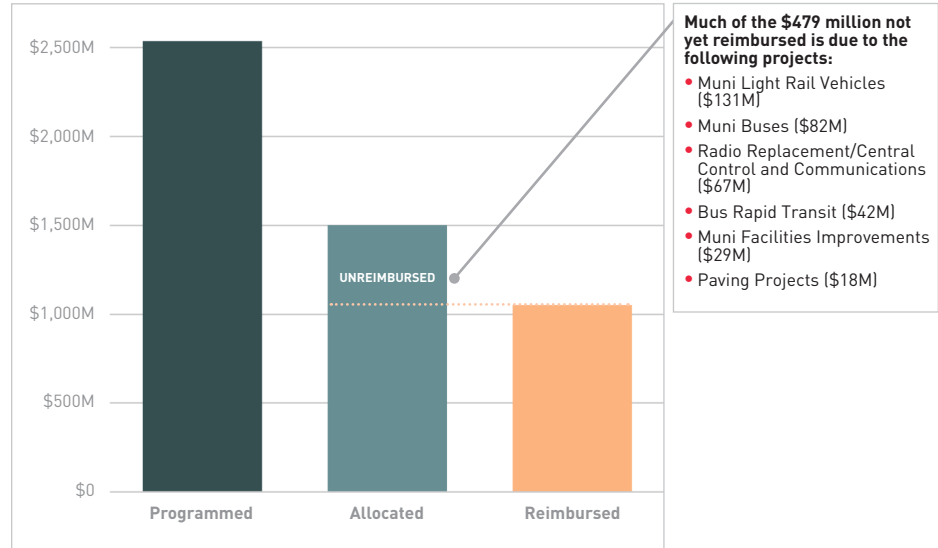


# FUND

curb ramps, and neighborhood planning. \$10 million was awarded for two major pavement renovation projects. More detail on these and prior allocations are described throughout this report.

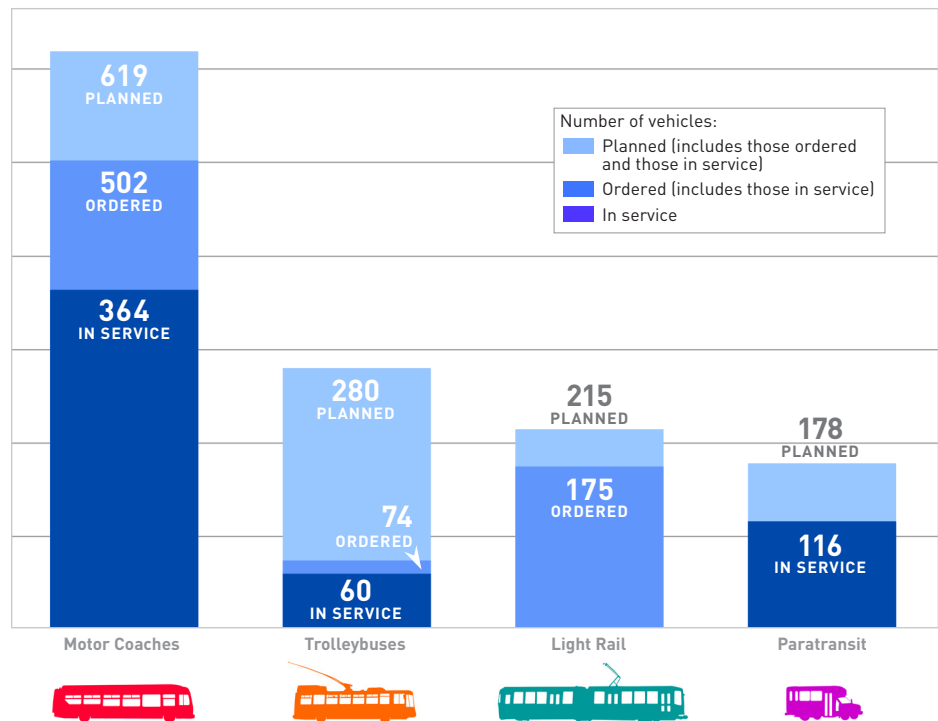
## PROP K CAPITAL PROGRAM SUMMARY

INCEPTION TO DECEMBER 2016



## NEW MUNI VEHICLES FUNDED BY PROP K SALES TAX

AS OF DECEMBER 15, 2016



Prop K Sales Tax leverages other federal/local dollars to fund new Muni Vehicles.

- ✓ 1,059 vehicles have been programmed
- ✓ 715 vehicles have been allocated to date
- ✓ 387 vehicles have been placed in service to date



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## NEIGHBORHOOD TRANSPORTATION IMPROVEMENT PROGRAM

SUPPORTING COMMUNITY-BASED  
PLANNING AND NEIGHBORHOOD-  
SCALE INVESTMENTS

The Transportation Authority has programmed over \$10 million Prop K sales tax funds for the NTIP, including \$9.5 million for implementing NTIP capital projects and \$1.1 million (\$100,000 for each supervisorial district) for NTIP planning efforts over the 5-year period ending in June 2019. A total of \$2.1 million in NTIP funds have been allocated to date.

The Neighborhood Transportation Improvement Program (NTIP) was developed in response to the SFTP's equity analysis finding that walking, biking, and transit reliability initiatives are important ways to address socio-economic and geographic disparities in San Francisco. This finding was reinforced by consistent feedback from the Transportation Authority Board and the public, placing an emphasis on investing in neighborhoods.

The purpose of the NTIP is to get people aware of, and involved in, the transportation planning process. The NTIP is also designed to advance the delivery of community-supported neighborhood-scale projects by developing a pipeline of projects (through NTIP Planning grants) and providing funds to help deliver projects in every district (through NTIP Capital grants).

NTIP Planning funds can be used for community-based efforts in San Francisco neighborhoods, especially in Communities of Concern or other underserved neighborhoods and areas with at-risk populations (e.g. seniors, children, and/or people with disabilities).

Since the program's inception in Fall 2014, the Transportation Authority has funded a diverse portfolio of NTIP planning projects in nine supervisorial districts and capital projects in six supervisorial districts (see map next page). In 2016 alone, nine projects were funded across six districts. Two years into the NTIP, several projects have reached substantial completion.

### NTIP Projects That Reached Substantial Completion in 2016

The SFMTA's District 1 NTIP planning project has developed conceptual designs for safer connections between Golden Gate Park and the Presidio, specifically for people walking and biking along 8th Avenue, 23rd Avenue, and Arguello Boulevard. Early recommendations from this study were funded with NTIP capital funds this year.

In District 2, the Transportation Authority's access management study of Lombard Street has identified and evaluated options to manage circulation on the Lombard "Crooked Street" block between Hyde and Leavenworth streets (see photo A, p. 25). Final recommendations will incorporate feedback received at open houses and smaller community group meetings, and will include recommendations for both immediate implementation and further study.

In District 5, the SFMTA's Western Addition Community-Based Transportation Plan has developed a series of recommendations to improve pedestrian safety, security, and street conditions in the project area, including near-term low-cost treatments on high-injury intersections, safety enhancements on Vision Zero high-injury corridors such as Turk and Golden Gate, and pedestrian lighting to make the Western Addition a safer, more walkable area.

# FUND

## CURRENT NTIP PROJECTS

(Supervisorial District shown in parentheses)

### PLANNING PROJECTS

1. Improving Connections to Golden Gate Park (1)
2. Lombard Study: Managing Access to the “Crooked Street” (2)
3. Kearny St. Multimodal Implementation (3)
4. 66-Quintara Reconfiguration Study (4)
5. Western Addition Community-Based Transportation Plan (5)
6. Pedestrian Safety in SoMa Youth and Family Zone, Folsom-Howard Streetscape Project (6)
7. Pedestrian Safety in SoMa Youth and Family Zone, Vision Zero Ramps Intersection Study (6)
8. Balboa Area Transportation Demand Management Study (7)
9. Alemany Interchange Improvement Study (9)
10. Geneva-San Jose Intersection Study (11)

### CAPITAL PROJECTS

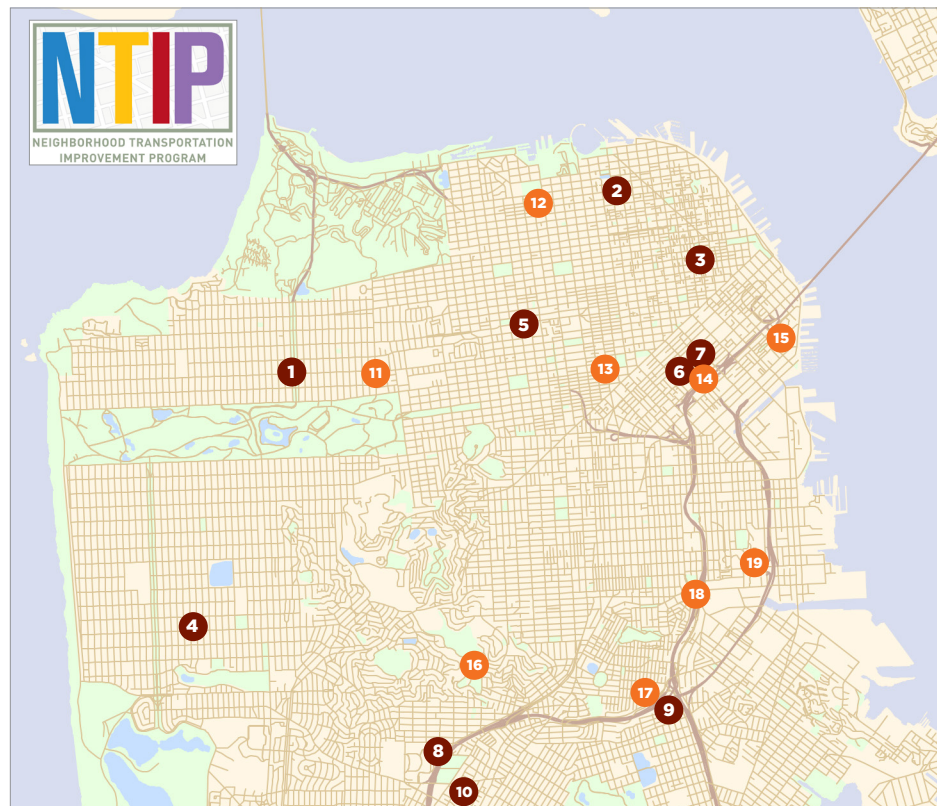
11. Arguello Blvd. Near-Term Improvements (1)
12. Lombard St./US-101 Corridor Pedestrian Safety (2)
13. Golden Gate Ave. Buffered Bike Lane (6)
14. Bessie Carmichael Crosswalk (6)
15. South Park Traffic Calming (6)
16. Elk St. at Sussex St. Pedestrian Safety Improvements (8)
17. Alemany Interchange Improvement Phase 1 (9)
18. Cesar Chavez/Bayshore/Potrero Intersection Improvements (10)
19. Potrero Hill Pedestrian Safety and Transit Access (10)

In District 9, the Transportation Authority has developed preliminary designs for pedestrian and bicycle improvements through the Alemany Interchange Improvement Study for the area where US 101, I-280, Alemany and Bayshore boulevards, San Bruno Avenue, and several other local streets intersect. (See photo B, p. 25.) Recommendations include a buffered bicycle lane along Alemany Boulevard between Putnam Street and Bayshore Boulevard, with painted bulb-outs and high visibility crosswalks, and a new north-south multimodal pathway with traffic signal and a high-visibility crosswalk connecting San Bruno Avenue to the Alemany Farmer’s Market.

The SFMTA’s District 10 NTIP capital project has advanced the design of bicycle and pedestrian improvements at key sites south of Cesar Chavez near the US 101 southbound on-ramp at the Cesar Chavez/Bayshore/Potrero intersection—the area known as “The Hairball.” (See map C, p. 25.) Building on recommendations from the Cesar Chavez East Community Design Plan (2012), this project recommends designs for wider multi-use or separated paths, accessibility upgrades, and a lighting plan for the interchange area. The SFMTA and SFPW will begin implementing recommendations in 2017.

## 2016’s New NTIP Projects

The SFMTA’s District 1 NTIP planning project has directly informed the design of Arguello Boulevard improvements. (See photo D, p. 25.) This capital NTIP project will improve safety for people walking and biking, including near-term paint-based treatments and long-term concrete bulb-outs to be implemented as part of an upcoming SFPW paving project.





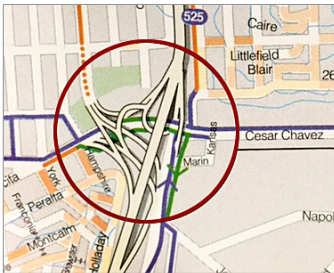
A

Alemany Interchange Improvement Phase 1 funds the recommendations of the NTIP planning study, including a road diet reducing vehicle travel lanes from six to four, and adding a buffered bicycle lane, painted bulb-outs, and high-visibility crosswalks. This project will improve accessibility, connectivity, and safety along one of the city’s high-injury corridors.



B

The SFMTA’s 66-Quintara Reconfiguration Study will evaluate adjusting this underutilized Muni route to improve route performance and strengthen the West Side’s access to transit hubs. This study was a recommendation from the Transportation Authority’s Strategic Analysis Report titled, “Improving West Side Transit Access,” which explored how the area’s transit hubs could be better utilized.



C

In District 6, the Transportation Authority is leading the Vision Zero Ramp Intersection Study to develop recommendations to improve safety at five collision-prone SoMa intersections where high-speed freeway ramps connect to city streets. (See photo E.) The Transportation Authority won a Caltrans Planning Grant to develop improvements at ten additional SoMa ramp intersections, with work on the second phase to begin in 2017. The SFMTA is leading the Folsom-Howard Streetscape Project, which will engage the community and other stakeholders in planning and conceptual engineering to redesign these streets to address pedestrian safety and access to community assets in the SoMa Youth and Family Zone.



D

Also in District 6, two projects have been funded through the capital NTIP, both of which are pedestrian safety improvements identified by community groups. SFPW’s South Park Traffic Calming Project will install bulb-outs and special paving at the gateway entrances to South Park, the oldest public park in San Francisco. The SFMTA’s Bessie Carmichael Crosswalk Project will open a crosswalk across Sherman Street at the entrance to the school yard, including two new curb ramps, a painted crosswalk, and school crossing signage.



E

The SFMTA is leading the Pedestrian Safety Improvements for Elk Street at Sussex Street project to improve access to the adjacent Glen Canyon Park. Improvements may include up to three bulb-outs, rectangular rapid flashing beacons, and pedestrian crossing signage.

The SFMTA’s Geneva-San Jose Intersection Study will develop conceptual designs for near-, medium- and long-term recommendations for multimodal safety and transit access improvements in the area around Geneva and San Jose avenues. This project was identified by the Balboa Park Station Community Advisory Committee (BPCAC), and is being coordinated with ongoing work in the area by BART, San Francisco Planning, and the Mayor’s Office of Housing and Community Development.

# FUND

## PROP AA VEHICLE REGISTRATION FEE

QUICKLY DELIVERING  
IMPROVEMENTS TO  
NEIGHBORHOODS CITYWIDE



Prop. AA funds helped pay for the Pedestrian Connector at City College. ▲

In 2010, San Francisco voters approved Proposition AA (Prop AA), authorizing the Transportation Authority to collect an additional \$10 annual vehicle registration fee on motor vehicles registered in San Francisco and to use the proceeds to fund transportation projects in the following three categories: street repair and reconstruction, pedestrian safety, and transit reliability and mobility improvements. Reflecting the modest amount of revenues generated by Prop AA (about \$5 million annually), the Prop AA Expenditure

Plan is intended to fund neighborhood-scale projects that can quickly deliver tangible benefits to the public. Thus, unlike the Prop K sales tax program, Prop AA only funds the final design and construction phases of projects.

In 2012 the Transportation Authority approved the first Prop AA Strategic Plan to guide day-to-day implementation of the program and to identify which projects will receive funds. As amended, the Strategic Plan programs \$27 million in Prop AA funds to 22 projects in the first five years of Prop AA (Fiscal Years 2012/13 to 2016/17). We are pleased to report that Prop AA is living up to its promise of delivering tangible benefits quickly to neighborhoods citywide—to date, nearly \$23 million in Prop AA funds have been allocated. We expect the final two allocation requests from the 2012 Strategic Plan to advance in early 2017. 11 Prop AA projects have been completed and are open for use by the public, with nine more projects under construction and scheduled for completion by the end of 2017.

### WHAT DOES PROP AA FUND?

The voter-approved Prop AA Expenditure Plan allocates vehicle registration fee revenues to three types of projects in the percentage allocations seen below.

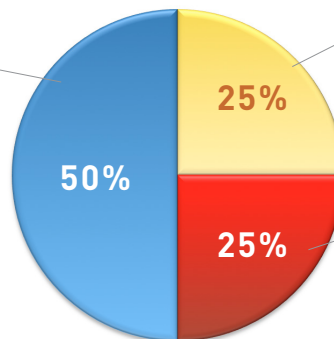
#### STREET REPAIR AND RECONSTRUCTION

Reconstruction of city streets with priority given to streets located on:

- Bicycle network
- Transit network

Priority to projects that include complete streets elements, including:

- Pedestrian improvements
- Traffic calming
- Bicycle infrastructure



#### PEDESTRIAN SAFETY

- Crosswalk maintenance
- Sidewalk repair and widening
- Sidewalk bulb-outs
- Pedestrian lighting, signals, and median islands

#### TRANSIT RELIABILITY AND MOBILITY IMPROVEMENTS

- Transit station/stop improvements
- Transit signal priority
- Travel information improvements
- Parking management pilots
- Transportation demand management

In October 2016, we started the process to update the Prop AA Strategic Plan by releasing a call for projects for an anticipated \$23.2 million in Prop AA funds that will be available over the next five years, starting in Fiscal Year 2017/18.

### Prop AA Allocations

In 2016, the three Prop AA construction projects (shown in the table below) were completed and opened for use by San Francisco residents and visitors who now enjoy smoother pavement, increased pedestrian access and safety, enhanced transit access, and more attractive public places. Projects include:

- ▶ Smooth rolling and walking along the newly repaved sections of Dolores Street between Market and Cesar Chavez, including an improved pedestrian crossing at the heavily-trafficked intersection of 18th and Dolores near Dolores Park and Mission High School, and a total of over 50 new curb ramps.

<b>FUNDED IN 2016</b> (PROJECT SPONSOR)	<b>TOTAL PROJECT COST</b>	<b>PROP AA ALLOCATED</b>	<b>CURRENT PHASE</b>
<b>Pedestrian Safety and Mobility Improvements</b>			
Mansell Corridor Improvement (SFPW)	\$6,955,706	\$163,358	Construction
Chinatown Broadway Phase IV (SFPW)	\$5,320,536	\$1,029,839	Construction
Bulb-outs at WalkFirst Locations (SFMTA)	\$5,491,757	\$491,757	Design
Webster Street Pedestrian Signals	\$1,760,000	\$141,794	Construction
<b>TOTAL</b>	<b>\$19,527,999</b>	<b>\$1,826,748</b>	
<b>Transit Reliability</b>			
Muni Bus Layover Area at BART Daly City Station (BART)	\$575,000	\$507,980	Construction
Elevator Safety and Reliability Upgrades (SFMTA)	\$2,950,000	\$287,000	Construction
<b>TOTAL</b>	<b>\$3,525,000</b>	<b>\$794,980</b>	
<b>2016 GRAND TOTAL</b>	<b>\$23,052,999</b>	<b>\$2,621,728</b>	
<b>OPEN FOR USE IN 2016</b> (PROJECT SPONSOR)			
	<b>TOTAL PROJECT COST</b>	<b>PROP AA ALLOCATED</b>	
<b>Street Repair</b>			
Dolores Street Pavement Renovation (SFPW)	\$3,230,263	\$2,210,000	
<b>TOTAL</b>	<b>\$3,230,263</b>	<b>\$2,210,000</b>	
<b>Pedestrian Safety</b>			
8th and Natoma Mid-Block Crossing (SFMTA)	\$364,508	\$364,508	
<b>TOTAL</b>	<b>\$364,508</b>	<b>\$364,508</b>	
<b>Transit Reliability and Mobility Improvements</b>			
City College Pedestrian Connector (SFMTA)	\$991,000	\$933,000	
<b>TOTAL</b>	<b>\$991,000</b>	<b>\$933,000</b>	
<b>OPEN FOR USE GRAND TOTAL</b>	<b>\$4,585,771</b>	<b>\$3,507,508</b>	

# FUND

Prop. AA funds helped pay for a new mid-block crossing at 8th and Natoma streets. ▶



- ▶ A new mid-block crossing, consisting of a pedestrian-activated signal, curb-bulbs, and a striped crosswalk at 8th and Natoma streets, now provides additional pedestrian safety and connectivity in SoMa.
- ▶ A growing City College is now better connected to transit options and bustling neighborhood activity along Ocean Avenue, thanks to the City College Pedestrian Connector, which includes a staircase featuring photos of neighborhood history.

## TRANSPORTATION FUND FOR CLEAN AIR

COST-EFFECTIVE PROJECTS  
THAT IMPROVE AIR QUALITY

As the Transportation Fund for Clean Air (TFCA) Program Manager for San Francisco, the Transportation Authority awarded over \$970,000 in 2016 to projects intended to cost-effectively reduce motor vehicle emissions while improving mobility. The funds come from San Francisco's county share portion of a regional \$4 vehicle registration fee administered by the Bay Area Air Quality Management District (Air District).

To be considered for TFCA funding, potential projects must demonstrate cost-effectiveness in terms of reducing motor vehicle emissions. Results of completed projects are reported to the Air District in order to inform prioritization criteria for future funding cycles.

TFCA grants awarded in 2016 include a mixture of new and proven projects. We are thrilled to be part of San Francisco State University's (SFSU's) Gator Pass Implementation Project, which will provide students with SFSU-specific Clipper cards that will allow unlimited travel on Muni or a discount on BART trips that start or end at the Daly City Station. TFCA funds will pay for the Clipper cards and the associated technological changes. The Metropolitan Transportation Commission (MTC) is also helping to fund the Gator Pass as are the students themselves, with student-approved fees covering the transit subsidies. This program may end up serving as a template for other student transit pass programs around the region.

In 2016, we also funded SFMTA projects to install 672 bike racks that will result in 1,344 parking spaces at locations throughout the city, and the Alternative Fuel Taxicab Incentive Program. Furthermore, we continued support for San Francisco Department of the Environment (SFE)'s Emergency Ride Home program, which guarantees a free ride home in cases of emergency for commuters who use transit, walk, or bike to work. Last, but not least, we are proud to report the completion of five TFCA projects as listed in the table below.

FUNDED IN 2016 (PROJECT SPONSOR)	TOTAL PROJECT COST	TFCA FUND AMOUNT
Short Term Bicycle Parking (SFMTA)	\$701,079	\$335,988
Emergency Ride Home Program (SFE)	\$36,269	\$36,269
Gator Pass Implementation Project (SFSU)	\$580,000	\$350,000
Alternative Fuel Taxicab Incentive Program (SFMTA)	\$250,000	\$250,000
<b>TOTAL</b>	<b>\$1,567,348</b>	<b>\$972,257</b>

COMPLETED IN 2016 (PROJECT SPONSOR)	TOTAL PROJECT COST	TFCA FUND AMOUNT
Short Term Bicycle Parking (SFMTA)	\$180,885	\$180,885
Alternative Fuel Taxicab Incentive Program (SFMTA)	\$198,444	\$198,444
Bike Racks on Buses (GGBHTD)	\$180,000	\$100,000
Emergency Ride Home (SFE)	\$41,838	\$41,838
Integrated Public-Private TDM Partnership Project (SFCTA)	\$141,084	\$141,084
<b>TOTAL</b>	<b>\$742,251</b>	<b>\$662,251</b>



In 2016, with the help of a TFCA grant awarded by the Transportation Authority, the SFMTA completed one round of awarding incentives for the purchase of hybrid taxis. These funds help ensure that San Francisco's taxi fleet is nearly 100% alternative fuel or hybrid powered—resulting in cleaner air. ▲

# FUND

## ONE BAY AREA GRANT

SUPPORTING MORE LIVABLE COMMUNITIES



We set aside a portion of OBAG funding for Safe Routes to School projects, including pedestrian improvements near Longfellow Elementary School. ▲

Over 70% of OBAG's funding goes to projects that support Priority Development Areas, locally-identified areas that are projected to take on most of the job and housing growth in a transit-oriented manner.

The MTC's 2013 county discretionary grant program, the One Bay Area Grant (OBAG) program, supports projects that are developed through an inclusive community planning effort, provide a range of transportation choices, integrate transportation and land use investments, and are able to be delivered within strict federal timely use-of-funds deadlines. OBAG provides

Congestion Management Agencies (CMAs), like the Transportation Authority, with transportation dollars through a formula that rewards jurisdictions that accept housing growth, have a good track record in housing production—particularly affordable housing—and focus transportation investments in support of locally-identified Priority Development Areas.

In 2016, we continued to support sponsors' advancement of OBAG projects in coordination with the MTC and the California Department of Transportation (Caltrans). In 2016, we were excited to see the Longfellow Elementary Safe Routes to School Project open for use in March and the Mansell Streetscape Improvement Project nearing completion in December, with a ribbon cutting anticipated in January 2017. In October 2016, we also saw the opening of the Transit-Oriented Unity Plaza project—San Francisco's outstanding commitment in the MTC's predecessor discretionary county grant program.

OBAG CYCLE 1 PROJECTS (PROJECT SPONSOR)	TOTAL PROJECT COST	OBAG FUNDS PROGRAMMED (AS OF DECEMBER 2016)	STATUS (AS OF DECEMBER 2016)
Chinatown Broadway Street Design (SFPW)	\$7,102,487	\$3,477,802	5% construction
ER Taylor Elementary School Safe Routes to School (SFPW)	\$604,573	\$400,115	Open for use
Longfellow Elementary School Safe Routes to School (SFPW)	\$852,855	\$670,307	Open for use
Mansell Corridor Improvement (SFMTA)	\$6,807,348	\$1,762,239	98% construction
Masonic Avenue Complete Streets (SFMTA)	\$22,785,900	\$0*	23% construction
Second Street Streetscape Improvement (SFPW)	\$15,415,115	\$10,567,997	In construction contract advertisement
Transbay Transit Center Bike and Pedestrian Improvements (TJPA)	\$11,480,440	\$6,000,000	100% design; construction to start early 2017
Light Rail Vehicle Procurement (LRV) (SFMTA)	\$175,000,000	\$10,227,540*	95% design
Lombard Street US-101 Corridor Improvement (SFPW)	\$17,465,000	\$1,910,000	75% design
<b>TOTAL</b>	<b>\$255,476,777</b>	<b>\$34,948,735</b>	

\* The Transportation Authority reprogrammed \$10,227,540 in OBAG funds from the Masonic Avenue project to the LRV Procurement project to facilitate project delivery but continues to monitor both projects.



## SAFE ROUTES TO SCHOOL

EDUCATION AND OUTREACH PROGRAM  
CONTINUES TO MAKE A DIFFERENCE

The purpose of Safe Routes to School (SR2S) program, led by the San Francisco Department of Public Health (DPH), is to promote walking and biking to and from school, focusing on education, encouragement, and evaluation. DPH is the lead agency for the SR2S Partnership, which includes the San Francisco Unified School District, public agencies, and non-profit/advocacy organizations. The Transportation Authority has helped fund the SR2S program for several years with SR2S funds made available through the MTC, including \$360,000 in 2016 to expand coordination, education, outreach, and evaluation efforts.

In 2016, 84 schools and 3,000 students and their families participated in San Francisco's 7th annual Bike & Roll to School Week in April, and 95 schools and 13,500 students participated in Walk & Roll to School Day in October. The SR2S Program also helped schools establish regular recurring walk and roll events throughout the school year. As a result, evaluation data indicates that the number of schools with increases in walking went up by 41% and in biking by 59%. The Transportation Authority also supports SR2S capital projects with Prop K sales tax and OBAG funds (see pages 20 and 30, respectively, for more details).



San Francisco's SR2S program continues to support safe walking and biking to school sites citywide. Attendees of the weekly Bike & Roll to School Hub at Excelsior Playground check out this year's bike being raffled away to one lucky SF family. ▲

# FUND

## LIFELINE TRANSPORTATION PROGRAM

IMPROVING MOBILITY FOR  
COMMUNITIES OF CONCERN

The LTP typically implements recommendations stemming from community-based transportation plans, such as the Persia Triangle Transit Improvements project. ▶

The Lifeline Transportation Program (LTP) was established by the MTC to improve mobility for low-income communities. As the CMA for San Francisco, the Transportation Authority is responsible for programming multiple LTP funding sources, as well as providing concurrence with San Francisco transit operators' LTP project priorities for the LTP funds they control directly.

The Transportation Authority continued to work throughout 2016 with the MTC and project sponsors to monitor delivery of previously-funded LTP projects. In January, the SFMTA completed the Cycle 2 LTP- and Prop K-funded Persia Triangle Transit Improvements project, which improved pedestrian safety and transit access in the area bounded by Mission, Ocean, and Persia streets (known as the “Heart of the Excelsior”), as recommended in the Transportation Authority’s Mission-Geneva Neighborhood Transportation Plan and the SFMTA’s Muni Forward Project. Improvements include: bulb-outs, sidewalk extensions, traffic signal upgrades, pedestrian streetlights, and realignment of the Alemany/Ocean intersection for the 29-Sunset Muni line.



CYCLE 4 LTP PROJECT PRIORITIES (PROJECT SPONSOR)	TOTAL PROJECT COST	LTP FUNDS PROGRAMMED	STATUS (AS OF DECEMBER 2016)
<b>Total programmed by the Transportation Authority: \$5,143,714</b>			
Expanding Late Night Transit Service to Communities in Need (SFMTA)	\$5,947,860	\$4,767,860	25% complete (operation)
Potrero Hill Pedestrian Safety and Transit Stop Improvements (SFMTA)	\$477,309	\$375,854	Design complete; construction underway
<b>Total programmed by transit operators, with the Transportation Authority's concurrence: \$7,409,287</b>			
Van Ness Bus Rapid Transit (SFMTA)	\$309,378,346	\$6,189,054	2% construction
Wayfinding Signage and Pit Stop Initiative (BART)	\$2,525,291	\$1,220,233	Signage: 45% construction Pit Stop: design complete; installation underway

# DELIVER



# DELIVER

## I-80/YERBA BUENA ISLAND INTERCHANGE IMPROVEMENT PROJECT

NEW I-80 WESTBOUND  
YERBA BUENA ISLAND  
RAMPS NOW OPEN!

### Phase 1

The Transportation Authority, working jointly with the Treasure Island Development Authority (TIDA) on the development of the I-80/Yerba Buena Island (YBI) Interchange Improvement Project, substantially completed Phase 1 of this landmark project when it opened the new westbound on- and off-ramps on Saturday, October 22, 2016. Funded with Federal Highway Bridge Program, state Proposition 1B Local Bridge Seismic Retrofit Account, and TIDA local match funds, the new westbound on- and off-ramps (on the east side of YBI) connect to the new eastern

span of the San Francisco Oakland Bay Bridge (SFOBB).

The \$98 million westbound on- and off-ramps significantly increase public safety for those traveling to and from the islands. These ramps are the first major capital project delivered by the Transportation Authority to provide vital transportation infrastructure for San Francisco's newest emerging neighborhood. The Transportation Authority was responsible for construction contract administration for the new west-



The Transportation Authority led the construction of the new westbound on- and off-ramps on Yerba Buena Island. ▲

bound on- and off-ramps which were completed on-budget and on-time. In addition, the Transportation Authority's contractor for this project, Golden State Bridge, met the Disadvantaged Business Enterprise (DBE) participation goal of 12.5%.

We continue to work closely with the California Department of Transportation (Caltrans) on the newly opened Eastern Span Bicycle and Pedestrian Path, which terminates at the YBI Bicycle/Pedestrian landing area. The Transportation Authority is leading coordination with Caltrans, the Bay Area Toll Authority (BATA), and TIDA to construct a temporary Vista Point area which will provide a better connection to the bicycle/pedestrian landing area. The Vista Point is scheduled for opening in early 2017 and will include restrooms, bike racks, benches, and hydration facilities, as well as a shuttle service taking visitors to Treasure Island.

We are also leading conceptual development and implementation efforts for the realignment of Southgate Road, which serves as the critical local road connection between the I-80/westbound and eastbound on- and off-ramps. The Transportation Authority is working with Caltrans and BATA to secure

funding for the Southgate Road Realignment Improvements, with the Transportation Authority taking the lead on delivering the improvements.

## Phase 2

Phase 2 of the YBI Interchange Improvement project, the YBI West-Side Bridges Retrofit project, will include the seismic retrofit of five bridge structures and the replacement of three bridge structures along Treasure Island Road. In 2016 the Transportation Authority continued to make progress on the project, which included advancing preliminary engineering efforts for the Value Engineering Alternative. This phase of the project will improve seismic performance, simplify construction efforts, and minimize maintenance cost. Detailed designs for the project are scheduled for completion in late 2017. The project is currently anticipated to start construction in late-2018 with completion targeted in late 2020.

During 2016, the Transportation Authority worked with Assemblyman David Chiu to secure the approval to deliver Phase 2 through an innovative implementation technique, Construction Management/General Contracting (CM/GC). Utilizing CM/GC would mean selecting a construction manager (contractor) with appropriate qualifications and engaging them during the design process to provide input regarding scheduling, pricing, phasing and constructability, resulting in a more constructible project. Near design completion, we would negotiate a guaranteed maximum price for construction with the construction manager and if the price is acceptable to both parties, we would execute an agreement with the construction contractor to construct the improvements.

The next phase of the YBI Interchange Improvement project will involve the seismic retrofit or replacement of several bridge structures on Treasure Island Road. ►



# DELIVER

## PRESIDIO PARKWAY (DOYLE DRIVE REPLACEMENT PROJECT)

SAN FRANCISCO'S NORTHERN GATEWAY IS OPEN; LANDSCAPING WORK CONTINUES

Originally built in 1936, Doyle Drive was, by the mid-1990s, deemed structurally and seismically deficient and required replacement. This critical regional link was re-envisioned as a parkway with separate roadways for opposing lanes of traffic, two sets of short tunnels, safety shoulders and a wide, landscaped median. Upon completion of all construction and final landscaping in 2017, San Francisco will have experienced the most dramatic improvement of its waterfront since the restoration of Crissy Field and the removal of the Embarcadero Freeway. The Presidio Parkway project is jointly led by the Transportation Authority and Caltrans.

What started as a critical local safety project, Presidio Parkway has emerged as an innovative project through its public-private partnership (P3) delivery model. The P3 contracting method has resulted in schedule certainty in terms of opening the seismically safe final roadway on time. The developer, Golden Link Concessionaire (GLC), will remain under contract for thirty years with performance requirements to ensure a high level of operations and maintenance and rehabilitation that will enhance the public's use of this important regional facility for years to come. Like all major complex projects of this size, Presidio Parkway faced some challenges and changes along the way, but the final costs of its delivery are well within the original Federal Highway Administration (FHWA) estimates. Upon completion, a full evaluation of the different contracting methods will be done and should yield valuable information for future projects.

Since successfully opening the roadway to traffic on time in September 2015, GLC has focused on completing the local roads and other Presidio Trust facilities as required to achieve Final Acceptance which is estimated for mid-2017. The Transportation Authority and Caltrans are also in discussions with the Presidio Trust about shifting the delivery of aspects of the final landscaping of the project to the Presidio Trust to better coordinate with delivery of the Presidio Trust's Parklands landscape project and minimize impacts to the public.

Final construction and landscaping are expected to be completed in 2017.



## CENTRAL SUBWAY

STATIONS AND SYSTEMS  
CONSTRUCTION IS UNDERWAY

The second phase of the Third Street Light Rail Project will extend service north from King Street along Fourth Street, enter a tunnel near Harrison Street, cross beneath Market Street, and run under Stockton Street to the intersection of Stockton and Washington streets in Chinatown. With stops in South of Market (SoMa), Yerba Buena/Moscone Center, 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 baseline budget for the project, led by the San Francisco Municipal Transportation Agency (SFMTA), is \$1.578 billion. Work on the \$233 million tunnels contract was completed by a joint venture of Barnard/Impregilo/Haley in 2015 on time and \$16 million under the baseline budget. In 2016, the focus of construction work shifted to the stations and systems contract. With a 27% DBE participation, contractor Tutor Perini is building three underground stations, one surface station, and the systems needed to support the subway extension. As of October 31, this contract was 50.7% complete while the overall project was 63% complete.

Revenue service is currently forecast for August 2019. Transportation Authority staff and project delivery oversight consultants will continue to work closely with the SFMTA as the project continues through the construction phase. The Transportation Authority has contributed nearly \$140 million in Prop K, State Transportation Improvement Program (STIP) funds and other funds to the project.

Crews have begun excavating “the bench of the side drifts at the cross-cut cavern,” which will be the future fare gate entrance area to the Chinatown Station. ▶



# DELIVER

## TRANSBAY TRANSIT CENTER AND CALTRAIN DOWNTOWN EXTENSION

STRUCTURAL ELEMENTS  
COMPLETED; WORK UNDERWAY  
ON BUILDING ENCLOSURES  
AND INSTALLATION OF SYSTEMS  
AND FINISHES



The largest project in the Prop K Expenditure Plan, the TTC/Caltrain Downtown Extension will transform downtown San Francisco. ▲

The largest project in the Prop K Expenditure Plan, the Transbay Transit Center/Caltrain Downtown Extension (TTC/DTX) project will transform downtown San Francisco and regional transportation well into the 21st Century. The project consists of three elements: building a new multimodal terminal (TTC); extending commuter rail service 1.3 miles from its current terminus at Fourth and King streets to the TTC with accommodations for future high-speed rail (DTX); and creating a transit-friendly neighborhood with 3,000 new homes (35% affordable) and mixed-use commercial development.

The total program budget is currently estimated at \$6.2 billion in year-of-expenditure dollars, of which

Phase 1 (TTC) is \$2.3 billion and Phase 2 (DTX) is \$3.9 billion. To date, the Transportation Authority has allocated \$188.5 million in Prop K funds to the project, in addition to state STIP and federal One Bay Area Grant (OBAG) funds.

All construction contracts for Phase 1 have been awarded. Anyone walking by, viewing the project from nearby skyscrapers or via the Transbay Joint Powers Authority's (TJPA's) construction cameras can see the five-story TTC taking shape, from

the connecting ramps to the Light Column in the Great Hall to the 5.4 acre rooftop park. Superstructure work was completed in December 2016, and work is underway on the building enclosure, systems, and finishes, as well as construction of the bus ramps from I-80 to the TTC. As of November 2016, Phase I was approximately 69% complete. Construction of the TTC is expected to be finished in late 2017 and bus operations are scheduled to commence in the second quarter of 2018. Meanwhile, bus operations continue at the temporary terminal at Main and Howard.

With respect to Phase 2, the DTX, preliminary engineering is complete. The TJPA is seeking funds to bring newly environmentally-cleared elements (e.g. an underground BART/Muni pedestrian connector) and revised elements (a relocated underground 4th and King Streets station) up to 30% design to support a revised, ground-up cost element. TJPA and its funding partners are also working together to secure funding for this phase, which still faces a significant funding gap, as well as to continue oversight of both project phases.



## CALTRAIN EARLY INVESTMENT PROGRAM

CALTRAIN MOVES FORWARD WITH A BLENDED SYSTEM FOR THE SAN FRANCISCO PENINSULA

The Early Investment Program—featuring Caltrain electrification—is one of the Prop K Expenditure Plan’s signature projects. The Program will improve system performance with faster, more reliable service while minimizing equipment and operating costs, and is critical to the long-term financial sustainability of Caltrain. The project will extend for 52 miles from San Francisco to San Jose and will result in a reduction of air pollutants, noise, and vibration. The program will also prepare the alignment for the future High-Speed Rail Blended system.

During 2016, work progressed on all three components of Caltrain’s Early Investment Program: The Communications-Based Overlay Signal System (CBOSS) to provide Positive Train Control (PTC); the electrification of the Caltrain line between San Jose and San Francisco; and the purchase of electric multiple-unit (EMU) vehicles to operate on the electrified railroad. In May 2016, Caltrain updated the project budget to a total cost of \$2.21 billion. In order to fill the resulting funding gap, the funding partners executed a Memorandum of Understanding agreeing to additional contributions. San Francisco’s commitment (which the Transportation Authority shares with the City) increased by \$20 million to a total of \$80 million.

Work is 83% complete on the design/build contract for CBOSS. The contractor, Parsons Transportation Group, has completed wayside and on-board installation—together with the Backup Central Control Facility—and is in the testing and commissioning phase. Revenue Service Demonstration is anticipated for April 2017. Final System Acceptance will follow later in the year.

In August 2016, Caltrain awarded the design-build electrification contract to Balfour Beatty Infrastructure in the amount of \$697 million and the \$551 million vehicles contract to Stadler Rail. Both contractors have been working on early contact submittals.

The Early Investment Program is expected to be completely operational by 2021.



Testing for elements of the Early Investment Program is underway. ▲

The Early Investment Program is expected to be completely operational by 2021.

# DELIVER

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## 19TH AVENUE /M-OCEAN VIEW PROJECT

A TRANSFORMATIVE PROJECT FOR  
SOUTHWEST SAN FRANCISCO THAT  
ALSO IMPROVES MUNI METRO  
CORE CAPACITY AND RELIABILITY

With Transportation Authority assistance, the SFMTA completed the 19th Avenue/M-Ocean View Project Study Report (PSR) in 2016. This major investment proposal aims to address crowding and reliability on Muni Metro—providing systemwide benefits—as well as enabling potentially transformative land use changes in the southwest sector of the city by removing the M-Line from the middle of 19th Avenue and putting it underground for at least a portion of its length. Initiated by the Transportation Authority with a feasibility study completed in 2014, the SFMTA has been advancing the project through a pre-environmental study phase since July 2014. The project includes proposals for a light-rail tunnel under 19th Avenue, improved pedestrian areas and an off-street bike path. It would dramatically improve the safety of the street for all users by upgrading stations to provide direct access and narrowing the street by more than 30%. The project is also seen as a major opportunity to improve Muni Metro’s core capacity by removing conflicts at major pinch points in the rail network and building new stations to support a long-term vision of four-car service from Parkmerced to Downtown, doubling the existing capacity of the line. Lastly, the project features a strong land use component as it is meant to complement and leverage the planned Parkmerced Development project, which envisions a comprehensive redesign of the approximately 116-acre site and will increase residential density to encompass a total of 8,900 units. In 2016 the project team received Caltrans approval of the PSR, and conducted outreach including four well-attended public meetings. The project is or will be considered along with other emerging transit expansion projects in the San Francisco Bay Area Core Capacity Transit Study, Connect SF and the next San Francisco Transportation Plan update (see Plan section for details on these three efforts).

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## MUNI FLEET RENOVATION, REPLACEMENT AND EXPANSION

FULL REPLACEMENT PROGRAM  
UNDERWAY FOR RUBBER-TIRE  
AND LIGHT RAIL FLEET

In 2016 the SFMTA continued the ambitious fleet replacement program it initiated in 2014 to fully replace its light rail vehicle (LRV) fleet as well as its rubber-tire fleet of motor coaches and trolleybuses. Since its inception the Prop K program has committed \$477 million as local matching funds for replacement and expansion of SFMTA’s transit fleet, of which \$304 million has been allocated for specific purchases. A substantial number of new motor coaches, trolley buses and paratransit vehicles are already in service (see chart on page 22) and the new LRVs are expected to be in service starting in fall 2017. We couldn’t be more pleased to report this news as there is no other single investment that has such a direct influence on day-to-day transit service reliability.

The Transportation Authority has allocated \$131 million and committed an additional \$28 million toward SFMTA’s \$1.2 billion contract with Siemens USA for purchase of new LRVs. The first tranche of 24 LRVs is scheduled



SFMTA has taken delivery of the first new LRV as part of its fleet upgrade. ▲

to be in service by the end of 2018, in time for inauguration of the Central Subway. As of December 2016, nine of these vehicles were in production at Siemens' Sacramento manufacturing plant, and delivery of the first LRV took place on January 13, 2017 for several months of testing in San Francisco. A tranche of 151 replacement vehicles together with 40 fleet expansion vehicles will be delivered between 2021 and 2027. The remaining 45 fleet expansion vehicles will be delivered be-

tween 2027 and 2030, pending funding availability. The LRV fleet expansion program has proven highly competitive for the California State Transportation Agency's Transit and Intercity Rail Capital Program, which is funded by revenues from the state's Cap-and-Trade program. The SFMTA has been awarded over \$85 million over two cycles for the purchase of new LRVs, providing strong leveraging to the Prop K investment.

With \$263 million in Prop K support—\$53 million of which was allocated in 2016—the SFMTA plans procurements totaling \$1.3 billion of 424 diesel electric hybrid motor coaches and 280 electric trolley coaches through its current contracts with New Flyer, Inc. All of these vehicles will be in service by 2020. As of the end of 2016, 166 of the motor coaches had been placed in service as had 60 new trolleybuses.

## MUNI RADIO REPLACEMENT

LONG-TERM EFFORT  
TO MODERNIZE OPERATIONS  
ENTERS FINAL PHASES

The SFMTA has been undertaking a comprehensive project to replace and modernize its radio communications system, some elements of which date back to the 1970s. We are excited to report that the SFMTA expects to fully switch to the new communications system in 2017.

The new communications system will be an Intelligent Transportation System (ITS) and will incorporate up-to-date technological features such as expanded data transmission and simulcasting in addition to providing voice communication. It will integrate multiple vehicle information systems, including the Vehicle Logic Unit, Automated Vehicle Location, Wireless Local Network; Digital Vehicle Announcement System, Automated Passenger Counting, Transit Signal Priority; Fare Collection, Video Surveillance, Vehicle Health Monitoring; Computer-Aided Dispatch, Mobile Dispatch, Reporting System; Traveler Information, Closed-Circuit Television (CCTV) and Personal Interactive Information systems.

# DELIVER



SFMTA radio replacement work is entering the final phases. ▲

In June 2012, the SFMTA issued the Notice to Proceed to Harris Corp., the design-build contractor for the project. All the systems and equipment have been tested and accepted, enabling on-board equipment installation on the rubber-tire fleet to start in November 2016. Individual buses will migrate to the new central control as soon as their equipment is installed. The rubber-tire fleet will be fully equipped in February 2017 and the LRV fleet is anticipated to be completed in

June 2017. At that time, the lion's share of the SFMTA's vehicles will be completed and switched over to the new Transportation Management Center and only the historic vehicles and some non-revenue vehicles will remain.

The project cost is currently estimated at \$135 million, to which the Transportation Authority has contributed \$61.8 million in Prop K funds.

## MUNI CENTRAL CONTROL AND COMMUNICATIONS CENTER

FACILITY IS READY, WITH NON-RADIO REPLACEMENT SYSTEMS ON-LINE; TRANSITION OF THE VEHICLES IS UNDERWAY

The SFMTA has an ongoing Central Control and Communications (C3) program to expand and modernize its transportation central control capabilities and facilities. In addition, the C3 program will provide the systems necessary to enable the SFMTA to reach its strategic objectives of improving transit reliability, accommodating current operational needs, and satisfying future needs, including the Central Subway—all crucial elements of the SFMTA's Strategic Plan.

The C3 program has three main components:

- ▶ Near-term improvements to the existing Operations Control Center (OCC).
- ▶ A new Transportation Management Center.
- ▶ Integrated Systems Development project, which will provide a communications, monitoring, and control platform in the Muni Metro subway.

Work on all three components is nearing completion. A new, \$32.1 million Transportation Management Center has been constructed, which expands OCC operational capabilities and consolidates other command and control functions that are currently separated, including the Transit Line Management Center, Power Control Center, SFgo Traffic Management Center, and the Security Division. In November 2016, with the installation of the new on-board communications system, the transition of vehicles to the new Transportation Management Center began. It is expected to complete in the third quarter of 2017.



Prop K funding is helping SFMTA expand its control and communications functions. ▲

## MUNI MAINTENANCE FACILITIES

PROJECT DELIVERY PIPELINE RAMPS UP, ALLOWING MUCH-NEEDED IMPROVEMENTS TO ADVANCE

SFMTA Muni maintenance facilities are getting upgrades thanks to Prop K funding. ►

This project will provide a communications, monitoring, and control platform in the Muni Metro subway that will allow the existing SFMTA central control functions to be seamlessly migrated from their existing locations to the new Transportation Management Center and will enable the future Central Subway communications systems to plug in as a single integrated communication platform. Construction is forecast for completion in June 2017. Prop K has provided approximately \$15.5 million of the \$53.2 million Phase I cost of the Integrated Systems Development project.

In 2016 Prop K allocations sharply increased for upgrades to the facilities that support SFMTA transit operations. The SFMTA received \$4.4 million in Prop K funds toward its \$30 million effort to fast-track improvements to its Burke Avenue distribution center for parts and supplies. By May 2018 the SFMTA must complete the renovations to the Burke facility and relocate its Overhead Lines division there from its current location on Bryant Street, which will in turn be upgraded to house the City's Animal Care and Control

department. The improvements will streamline the Burke facility's current warehouse functions, make space for Overhead Lines equipment and supplies, and make the building safer and more accessible for employees.

In 2016, the SFMTA entered the construction phase of its \$15 million Fall Protection program, which is fully funded by Prop K. The program will provide worker fall protection systems at six maintenance and repair facilities for electric trolleybuses, light rail vehicles and historic streetcars. Improvements at four of the locations will include high voltage disconnect switches for worker safety on the roofs of electric transit vehicles. All new systems will comply with current Occupational Safety and Health Administration rules.



# DELIVER

Phase 2 improvements to the Muni Metro East (MME) LRV maintenance facility entered the environmental review phase in 2016 with a \$1.5 million Prop K grant. Previously planned for Phase 2 were a new paint and body shop, a mid-life overhaul facility and infrastructure for storage of historic street cars outside of revenue hours. After re-evaluating priority needs, the SFMTA's revised scope approved by the Transportation Authority focuses instead on the imminent expansion of SFMTA's LRV fleet. It extends the MME facility's storage tracks and related equipment into the southwest quadrant of the site.

In 2016 the SFMTA continued its \$29 million program to modernize and replace 22 of the 28 escalators at its Muni Metro stations, supported by \$5 million in Prop K local matching funds. The first phase of the program, replacement of five street-level escalators, was substantially complete in 2013. Phase 2, replacement of an additional 17 escalators, began construction in Fall 2015 and completed four escalators in 2016: two at Powell Street Station and two at Castro Street Station.

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## MUNI GUIDEWAYS PROJECTS

BEHIND THE SCENES  
IMPROVEMENTS IN  
SAFETY AND RELIABILITY

2016 saw a large increase in the number of system reliability projects initiated by the SFMTA and funded with Prop K, including five grants totaling \$8.5 million for rail grinding in the subway, trackway and equipment improvements in the Twin Peaks Tunnel, critical wiring for the Advance Train Control System, rebuilding the cable pulley gearboxes in the cable car barn, and replacement of the overhead contact wires

and poles on 2.3 miles of the 33-Stanyan trolleybus line. Together, these grants leverage \$39 million in other funds. While the improvements aren't as visible to the public, they are necessary to ensure safety and reliable Muni service.

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## MUNI RELIABILITY, SPEED, AND SAFETY PROJECTS

### Muni Forward and System Reliability

In 2016 the SFMTA was engaged in a wide variety of projects to enhance reliability, speed, and safety through its Muni Forward program, supported in part by \$13 million in Prop K funds. These projects include a mix of new bus bulbs, boarding islands, traffic lane changes, transit priority signals and other

traffic signal improvements, stop optimizations, route realignments, and related signal, bicycle, and pedestrian projects, as appropriate for specific corridors. Since its launch in March 2014, Muni Forward has advanced 36 miles of improvements through the planning phase and legislative approval, with approximately 26 miles of improvements legislated in 2016. In the past year, construction began on improvements for the 14-Mission (11th to 30th Streets), 5-Fulton, 7-Haight and the 9-San Bruno lines. Detailed design was completed for the N-Judah line and construction is starting in 2017. Design is underway for the 30-Stockton, 28-19th Avenue, 22-Fillmore and L-Taraval



Van Ness Avenue BRT construction has begun. ▲

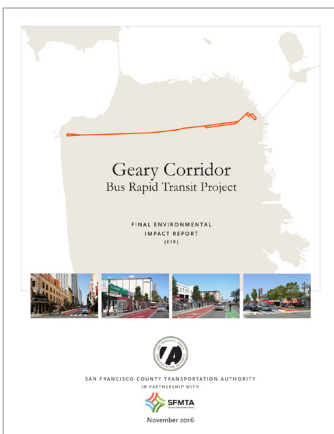
lines, and planning work is underway for two additional segments of the 14-Mission line (Spear to 11th streets and Randall Street to Daly City) as well as for the J-Church line. The SFMTA nearly completed its N-Judah Customer First project in 2016 with the installation of colored lanes, transit priority signals, information panels, transit lane enforcement cameras and branding of stops and vehicles.

### Bus Rapid Transit

Bus Rapid Transit (BRT) represents a package of features that together create rapid and reliable, rail-like transit service for the benefit of passengers along a given corridor. BRT elements include dedicated bus lanes separated from regular traffic, low floor boarding, consolidated transit stops, high-quality stations with elevated platforms and canopies, transit signal priority, pedestrian safety enhancements, and much more. In 2016 Prop K funds support three BRT projects in various stages of development: Van Ness, Geary and Geneva-Harney.

In September 2016 the SFMTA completed detailed design for the \$316 million Van Ness BRT project. The construction phase began in October 2016 with the closures of left turn lanes along Van Ness Avenue. To maximize the benefits of construction impacts, the project also includes extensive utility maintenance, civic improvements and transportation upgrades. Revenue service is expected to begin in 2019. Prop K has contributed approximately \$40 million toward the project to date.

Transportation Authority staff, working closely with the SFMTA, led the Geary BRT project to a major milestone in 2016 with release of the Final Environmental Impact Statement (EIR)/Environmental Impact Report (EIS). The Transportation Authority approved the EIR on January 5, 2017, with approval of the EIS expected later in 2017. Funded by Prop K and Prop A General Obligation Bond funds, the SFMTA has nearly completed designs for a first phase of project improvements including side-running bus-only lanes, stop upgrades, repaving, traffic signal and striping work, and pedestrian crossing enhancements between Market Street and Stanyan Street. This approach will allow benefits to be delivered to the corridor quickly, with



# DELIVER

construction planned to begin in 2017, while design work continues on the more complex second phase of the project, including center bus-only lanes through the Richmond district.

Also in 2016 the Transportation Authority allocated \$4.2 million to the SFMTA to begin the environmental phase of the Geneva-Harney BRT project, a proposed rapid transit service between the Balboa Park BART/Muni Station and the Hunters Point Shipyard site. The project would provide existing and future neighborhoods along the San Mateo-San Francisco County border with a bus connection to the border areas key regional transit system hubs and filling a gap in east-west transportation in this area.

## PARATRANSIT

THE SFMTA OFFERS A VARIETY OF PARATRANSIT SERVICES FOR INDIVIDUALS WITH DISABILITIES WHO ARE UNABLE TO USE MUNI BUS OR RAIL

In 2016, the SFMTA provided approximately 800,000 paratransit trips to approximately 14,000 registered clients with disabilities who were unable to use Muni's fixed route bus or light rail services. Paratransit in San Francisco is administered by a broker and delivered through a diverse set of providers and resources, including 112 city-owned vehicles (67 of which are less than 5 years old), private taxis, group vans associated

with community centers throughout the city, and inter-county paratransit services. In addition to regular paratransit services, the program also provides shopping shuttle services (partially funded by Lifeline Transportation Program funds programmed by the Transportation Authority) for qualifying individuals who have difficulty using standard fixed-route transit for transporting groceries. In 2016 the San Francisco Board of Supervisors approved a five-year \$142 million contract with Transdev to provide both broker and operating services for the paratransit program.

Between 2003 and 2014, the Prop K sales tax program provided approximately \$9.7 million per year to the SFMTA for the paratransit program, covering just over half of the operating costs. Since 2015, Prop K has provided approximately \$10.2 million to help cover the cost of operational changes that reduce passenger trip times for group vans. Other service improvements for the

Nofomuli Finaulahi straps Bruce Oka into the San Francisco Paratransit Bus the "Grayce Reagan." ▶





paratransit program in 2016 included development and implementation of several mobility management programs and activities to aid seniors and persons with disabilities, informing them by phone, in person and/or through the internet about the transportation services available to them both privately and publicly in San Francisco.

## 19TH AVENUE COMBINED CITY PROJECT

MUNI FORWARD, VISION ZERO,  
AND UTILITY UPGRADES  
COORDINATION EFFORT CONTINUES

This unified effort by the SFMTA, SFPW, and the San Francisco Public Utilities Commission (SFPUC) to combine multiple repair, reconstruction, upgrade, and improvement projects along 19th Avenue into a single complete streets construction project in order to maximize coordination and minimize disruption to the community in advance of Caltrans' resurfacing project continues to make positive progress in 2016.

Because the project had been initiated by the Transportation Authority as the 19th Ave Bulb-out Project, prompted by recommendations from the 19th Avenue Park Presidio Neighborhood Transportation Plan (2008), the Transportation Authority has been actively engaged in coordinating the Combined City Project through the Caltrans project initiation and approval phase.

The combined project includes bus and pedestrian bulb-outs; bus stop consolidation and relocation; water system replacement, new installation, and upgrades; wastewater system repair and replacement; and signal modifications and upgrades throughout the corridor. The project team submitted a final project approval documentation package to Caltrans in September; utility potholing was completed in November; 95% complete final design was submitted in December. Planning and design of the project is funded by Prop K sales tax and SFPUC. Construction is currently anticipated from Spring 2017 through late 2018, and will be funded by the recently passed Prop A general obligation bond and SFPUC.



New signal installation is part of the 19th Avenue Combined City Project. ▲

# DELIVER

## STREETS AND TRAFFIC SAFETY, AND TRANSPORTATION SYSTEM MANAGEMENT

In 2016, the Transportation Authority continued to allocate Prop K sales tax, Prop AA vehicle registration fees, and Transportation Fund for Clean Air (TFCA) funds to provide project delivery and support to a wide variety of programs and projects that improve the safety and efficiency of the multi-modal transportation network in San Francisco. A summary is provided below that highlights projects funded from the

Prop K categories for Streets and Traffic Safety and Transportation System Management categories, as well as by the Prop AA and TFCA funding programs. See pages 26 and 28 in the Fund sections for further detail on the Prop AA and TFCA programs.

### Curb Ramps



In 2016 SFPW and the SFMTA constructed nearly 200 new curb ramps at crosswalks across the city as part of Transportation Authority funded street improvement projects. SFPW constructed 78 curb ramps as part of its annual Curb Ramp program, funded by a 2015 Prop K allocation of approximately \$725,600. These locations, most of which have been requested by individuals with disabilities, are in addition to curb ramps built as part of other capital projects such as the 77 curb ramps constructed as part of the Prop K and Prop AA funded paving projects on Dolores, Ingalls and Industrial streets and Potrero Avenue. The SFMTA also constructed 42 curb ramps as part of Prop K funded projects to construct pedestrian improvements at 7th Avenue and Lincoln Way, Hunters View, Sloat Boulevard, and new traffic signals in Districts 1, 3, 4, 5, and 6.

Looking ahead, a 2016 Prop K allocation of \$764,000 will fund construction of up to 65 curb ramps in 2017 as part of SFPW's Curb Ramps program while Prop K allocations for paving projects on Clayton and Clipper streets and Portola Drive, and on Eureka Street and Grandview and Mangels avenues will fund construction of 177 curb ramps in 2017 and 2018. Lastly, a Prop K allocation approved in 2016 for new signals and flashing beacons at 10 intersections will fund construction of approximately 28 curb ramps in 2017.

### Street Reconstruction

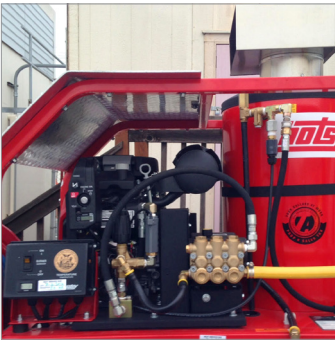


In 2016 SFPW completed pavement renovations along 2 miles of Dolores Street primarily with Prop AA funds. The project included major safety improvements to the intersection at Dolores and 18th streets, including two pedestrian refuge islands and four curb bulbs. SFPW completed approximately 60% of a Prop K funded, 1.5 mile pavement renovation project on Industrial Street and Ingalls Street. This year SFPW started construction of a pavement renovation project, primarily funded by Prop K, which will reconstruct 1.5 miles of Potrero Avenue. This paving project is coordinated with the Potrero Avenue Streetscape project and major sewer repair, which in turn are being coordinated with the San Francisco General Hospital rebuild.

Two new Prop K allocations in 2016, totaling \$10.2 million, will fund pavement renovation on Clayton and Clipper streets and Portola Drive, as well as Eureka Street and Grandview and Mangels avenues. Construction on those projects will begin in 2017.

Street reconstruction projects typically include rebuilt or repaired curbs and gutters, sidewalk repairs, and ADA-accessible curb ramps in addition to new pavement and striping. Streetscape projects may include a wide variety of features such as landscaping, new lane configurations, bike lanes, curb bulbs, and other Vision Zero safety elements.

### Street Repair and Cleaning Equipment

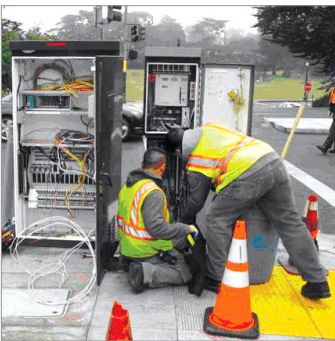


In 2016, SFPW took delivery of \$1.3 million worth of Prop K funded street repair and cleaning equipment, including seven street cleaning vehicles. SFPW also continued its Prop K funded program of retrofitting its older diesel powered street maintenance equipment to meet California Air Resources Board emissions standards. To date SFPW has completed the retrofits for 29 of the 36 planned retrofits using Prop K funds. In 2016, the Transportation Authority allocated \$1.5 million to SFPW to replace five street sweepers that have exceeded their useful lives and are non-compliant with current emissions standards. The new, cleaner equipment is expected to be in service in 2017.

### Sidewalk Repair and Trees

In 2016, nearly \$540,000 in Prop K funds enabled SFPW to repair 419 locations where sidewalks had been damaged by street trees in the public right-of-way. Another \$1.1 million in Prop K funds was used to plant 297 replacement trees, establish 998 replacement street trees in public rights-of-way, and perform pruning work on 1,179 city-maintained trees.

### SFgo



Prop K funds are available for projects and programs intended to optimize the capacity of the roadway system through state-of-the-art technology (known as ITS projects) that are implemented in San Francisco under the SFMTA's SFgo program. SFgo uses traffic signal controllers, interconnect conduits, variable message signs, and closed circuit television cameras to upgrade the traffic signal infrastructure, connect intersections to each other and to the new Transportation Management Center, and provide real-time traveler information. In 2016, the Van Ness Corridors Improvements Project, funded by \$1.5 million in Prop K funds and \$10 million in state and federal funds, finalized all SFgo improvements along Franklin and Gough streets. This project enables the SFMTA to manage the arterial traffic on these corridors which are now ready to complement the Van Ness BRT project.

# DELIVER

## Transportation Demand Management



TDM is a term for policies, programs, and tools that work with existing transportation infrastructure and services to help people make sustainable trip choices and to increase efficiency of the transportation system. TDM strategies prioritize transit, walking, bicycling, and ridesharing.

In 2016, SFMTA completed its Comprehensive Transportation Demand Management (TDM) Program, which did targeted outreach to residents and employers in two San Francisco neighborhoods—the northeastern Mission District and Ingleside—to encourage the use of available alternative transportation options. SFE also provided another year of services through its Emergency Ride Home Program, which provides a free ride home in cases of emergency for employees who use alternative modes to get to work.

SFMTA continued work on another innovative TDM project in 2016, the New Resident Transportation Outreach project. This project is establishing an outreach and education program for residents who are new to San Francisco's transportation system and Transit First policies, with the goal of influencing the new residents to take the majority of their trips by sustainable modes. These projects were funded with the help of Prop K and TFCA.

## Biking



In 2016, a number of bicycle projects were completed, including bike racks on sidewalks citywide in San Francisco, sharrow and safe-hit post installation and maintenance citywide, additional counters and barometers, better bike facilities on Arguello Blvd and Golden Gate Ave, as well as intersection improvements at 7th Avenue and Lincoln Way. The SFMTA also delivered another year of bicycle promotion through events including Bike to Work Day 2016, as well as safety classes to San Franciscans of all ages and bicycle abilities.

Other significant funded projects continued to advance including the planned expansion of Bay Area Bike Share in San Francisco from fewer than 400 to 4,500 bikes, planning and conceptual design work on corridors identified in the SFMTA's Bicycle Strategy, bicycle facilities on Mansell through McLaren Park and new citywide bicycle wayfinding signs.

These projects were funding in part by Prop K, Prop AA, TFCA and OBAG.

## Walking

Prop K and Prop AA are among the few dedicated and stable sources of funding for pedestrian and accessibility improvements. These sources support the City's Vision Zero goal by supporting quick, effective, and low-cost projects as well as more significant investments such as transformative complete streets projects. In 2016, Prop K often leveraged other Transportation Authority fund sources like Prop AA, Lifeline Transportation Program, and TFCA to make significant contributions to improving San Francisco's walking environment, including completion of the WalkFirst Phase 1 quick and



effective safety improvements at over 300 intersections along High Injury Corridors throughout the city; a Golden Gate Avenue road diet between Polk and Market streets; and Mansell Corridor improvements (substantially completed in 2016). Another project delivered in 2016, focused on making Sloat Boulevard safer, particularly for pedestrians. Serving as both a state highway and a residential street near Lowell High School, Lakeshore Plaza Shopping Center, and Muni stops, Sloat Boulevard has been subject to several tragic collisions. In 2016, pedestrian hybrid beacons, bulb-outs, and medians have been completed on the Everglade and 23rd Avenue intersections using Prop K sales tax and federal funds. This project also received 2016 Caltrans Excellence in Transportation Awards for Transportation System Operations Improvements.

### Safe Routes to School



In 2016, several schools benefitted from Safe Routes to School projects funded with Prop K and federal funds. Longfellow Elementary School, a cycle 1 One Bay Area Grant project (see page 30) received new pedestrian bulb-outs and upgraded curb ramps on Mission Street at Whittier, Whipple and Lowell streets, and rapid flashing beacons on Mission at Whipple. Supported by Prop K sales tax and Federal Safe Routes to School funds, SFPW coordinated with SFMTA and the SFPUC to complete a bus bulb at the Turk and Hyde streets intersection and corner bulb-outs at the Turk and Hyde, Larkin, and Franklin Street intersections to expand the much-needed pedestrian space and slow traffic near Tenderloin Community Elementary School. Prop K also funded outreach to Cesar Chavez Elementary School and the surrounding neighborhood to develop traffic calming recommendations for the vicinity that were subsequently funded by Prop K, such as speed humps and striping upgrades. These improvements are near-term outcomes of the planning work that will inform longer-term bicycle network planning for Shotwell and 22nd streets.

### Signals and Signs



In 2016 Prop K and Prop AA funded new and upgraded traffic signals at 39 intersections throughout the city, including over 85 pedestrian countdown signals and six accessible (audible) pedestrian signals. New signal and signal upgrade projects typically include larger traffic signal heads, new poles, signal mounts on mast arms for higher visibility, signal controllers, curb ramps, and other features to enhance pedestrian safety and reduce collisions.

Signal improvements were installed along Franklin and Divisadero streets, and as part of the SFMTA's Glen Park Community Plan Implementation, Persia Triangle Transit Improvements and 7th Avenue and Lincoln Way Intersection Improvements projects.

As part of the Prop K funded 3rd Street Traffic Signal Detection Upgrade project, the SFMTA replaced video-based traffic detection systems at 10 intersections along Third Street with more effective wireless systems. The

# DELIVER

improved equipment can detect both vehicles and bicycles waiting at cross streets. The SFMTA plans two more phases of the project to cover additional intersections along Third Street.

Prop K and Prop AA funds were allocated in 2016 for signal upgrades at 12 intersections along Eddy and Ellis streets and South Van Ness Avenue, installation of 36 pedestrian countdown and accessible signals on Webster Street, and construction of new traffic signals at six intersections and installation of flashing beacons at two locations throughout the city. Construction of these projects is scheduled to begin in 2017.

# TRANSPARENCY AND ACCOUNTABILITY



# TRANSPARENCY AND ACCOUNTABILITY

## PROP K

### ACTIVITY DETAIL FOR CALENDAR YEAR 2016

	ALLOCATIONS		EXPENDITURES	
	2016 ALLOCATIONS/ (DE-OBLIGATIONS)	INCEPTION TO DATE ALLOCATIONS	2016 EXPENDITURES	INCEPTION TO DATE EXPENDITURES
<b>A. TRANSIT</b>				
<b>i. Major Capital Projects</b>				
a. Muni	\$ 21,704,034	\$ 281,889,595	\$ 15,440,808	\$ 243,824,285
Rapid Bus Network including Real-Time Transit Information	21,704,034	64,909,436	9,831,289	28,582,858
Third Street Light Rail (Phase 1)	—	92,205,127	2,029,582	90,712,363
Central Subway (Third Street Light Rail, Phase 2)	—	124,775,032	3,579,937	124,529,064
Geary LRT	—	—	—	—
b. Caltrain	\$ 1,601,544	\$ 218,733,162	\$ 15,289,573	\$ 197,006,801
Downtown Extension to a Rebuilt Transbay Terminal	(3,534,185)	184,941,144	7,586,463	176,305,494
Electrification	4,040,000	20,900,000	7,517,096	12,426,357
Capital Improvement Program	1,095,729	12,892,018	186,014	8,274,950
c. BART Station Access, Safety, and Capacity	\$ (9)	\$ 5,444,709	\$ 49,861	\$ 3,126,610
d. Ferry	\$ —	\$ 1,336,620	\$ —	\$ 1,336,620
<b>MAJOR CAPITAL PROJECTS TOTAL</b>	<b>\$ 23,305,569</b>	<b>\$ 507,404,086</b>	<b>\$ 30,780,242</b>	<b>\$ 445,294,316</b>
<b>ii. Transit Enhancements</b>				
Extension of Trolleybus Lines/Electrification of Motorcoach Routes	\$ —	\$ —	\$ —	\$ —
Extension of Streetcar Service (Fisherman's Wharf to Fort Mason)	—	—	—	—
Balboa Park BART/Muni Station Access Improvements	50,000	3,876,999	247,618	1,444,864
Relocation of Caltrain Paul Avenue Station to Oakdale Avenue	—	2,735,689	92,857	555,426
Purchase of Additional Light Rail Vehicles for Muni Light Rail Lines	—	4,598,311	—	5,821
Other Transit Enhancements	2,523,174	4,303,131	248,355	1,540,581
<b>TRANSIT ENHANCEMENTS TOTAL</b>	<b>\$ 2,573,174</b>	<b>\$ 15,514,130</b>	<b>\$ 588,830</b>	<b>\$ 3,546,692</b>
<b>iii. System Maintenance and Renovation</b>				
a. Vehicles	\$ 55,680,320	\$ 340,670,520	\$ 40,872,887	\$ 125,077,394
Transit Vehicle Replacement and Renovation	55,680,320	333,053,989	40,872,887	117,460,864
Trolleybus Wheelchair-lift Incremental Operations and Maintenance	—	2,448,531	—	2,448,530
F-Line Historic Streetcar Incremental Operations and Maintenance	—	5,168,000	—	5,168,000
b. Facilities	\$ 14,613,721	\$ 74,382,660	\$ 2,262,786	\$ 37,268,850
Rehabilitation, Upgrade and Replacement of Existing Facilities	14,613,721	57,601,660	2,262,786	20,487,850
Muni Metro Extension Incremental Operations and Maintenance	—	16,781,000	—	16,781,000
c. Guideways	\$ 15,540,315	\$ 148,964,014	\$ 7,976,073	\$ 66,262,273
<b>SYSTEM MAINTENANCE AND RENOVATION TOTAL</b>	<b>\$ 85,834,356</b>	<b>\$ 564,017,194</b>	<b>\$ 51,111,746</b>	<b>\$ 228,608,517</b>
<b>TRANSIT TOTAL</b>	<b>\$ 111,713,099</b>	<b>\$ 1,086,935,410</b>	<b>\$ 82,480,818</b>	<b>\$ 677,449,525</b>
<b>B. PARATRANSIT SERVICES</b>				
Paratransit Services	\$ 10,193,010	\$ 121,046,294	\$ 10,714,583	\$ 117,381,093
<b>PARATRANSIT SERVICES TOTAL</b>	<b>\$ 10,193,010</b>	<b>\$ 121,046,294</b>	<b>\$ 10,714,583</b>	<b>\$ 117,381,093</b>

The San Francisco County Transportation Authority was created to administer the proceeds of Prop B, the first local half-cent sales tax for transportation approved by San Francisco voters in 1989. In November 2003, the voters approved the Prop K half-cent sales tax for transportation, which superseded Prop B. Since then, the Transportation Authority worked with project sponsors to oversee delivery of the remaining open grants. In 2016 the Transportation Authority closed out the Prop B program. With nearly \$1 billion in invested in improvements citywide—from smoother streets to new traffic signals to sidewalks to the Third Street Light Line line, the Prop B local half-cent sales tax has been an essential funding source for transportation in San Francisco, a role which is now continued through the Prop K program.



# PROP K

## ACTIVITY DETAIL FOR CALENDAR YEAR 2016

	ALLOCATIONS		EXPENDITURES	
	2016 ALLOCATIONS/ (DE-OBLIGATIONS)	INCEPTION TO DATE ALLOCATIONS	2016 EXPENDITURES	INCEPTION TO DATE EXPENDITURES
<b>C. STREETS AND TRAFFIC SAFETY</b>				
<b>i. Major Capital Projects</b>				
a. Doyle Drive	\$ —	\$ 67,843,737	\$ 1,050,476	\$ 65,227,137
b. New and Upgraded Streets	\$ 2,038,031	\$ 8,965,957	\$ 686,593	\$ 6,317,777
Bernal Heights Street System Upgrading	—	2,550,585	—	2,550,585
Great Highway Erosion Repair	70,012	385,196	93,695	143,077
Visitation Valley Watershed Area Projects (San Francisco share)	1,778,050	2,641,380	254,243	797,328
Illinois Street Bridge	—	2,000,000	—	2,000,000
Traffic Study to Reduce Impacts of SR1 in Golden Gate Park	—	—	—	—
Upgrades to Major Arterials (including 19th Avenue)	189,969	1,388,796	338,655	826,787
<b>MAJOR CAPITAL PROJECTS TOTAL</b>	<b>\$ 2,038,031</b>	<b>\$ 76,809,694</b>	<b>\$ 1,737,069</b>	<b>\$ 71,544,914</b>
<b>ii. System Operations, Efficiency and Safety</b>				
a. New Signals and Signs	\$ 1,529,220	\$ 15,054,444	\$ 1,641,689	\$ 13,049,377
b. Advanced Technology and Information Systems (SFgo)	\$ —	\$ 4,195,057	\$ 420,338	\$ 3,736,123
<b>SYSTEM OPERATIONS, EFFICIENCY AND SAFETY TOTAL</b>	<b>\$ 1,529,220</b>	<b>\$ 19,249,501</b>	<b>\$ 2,062,027</b>	<b>\$ 16,785,500</b>
<b>iii. System Maintenance and Renovation</b>				
a. Signals and Signs	\$ 1,951,517	\$ 32,418,025	\$ 2,959,445	\$ 23,526,483
b. Street Resurfacing, Rehabilitation, and Maintenance	\$ 11,692,745	\$ 83,266,553	\$ 2,525,556	\$ 63,619,988
Street Resurfacing and Reconstruction	10,193,337	70,839,003	1,062,684	53,479,316
Street Repair and Cleaning Equipment	1,499,408	10,277,906	1,462,872	7,991,028
Embarcadero Roadway Incremental Operations and Maintenance	—	2,149,644	—	2,149,644
c. Pedestrian and Bicycle Facility Maintenance	\$ 687,479	\$ 7,690,278	\$ 916,319	\$ 7,340,778
<b>SYSTEM MAINTENANCE AND RENOVATION TOTAL</b>	<b>\$ 14,331,741</b>	<b>\$ 123,374,856</b>	<b>\$ 6,401,320</b>	<b>\$ 94,487,249</b>
<b>iv. Bicycle and Pedestrian Improvements</b>				
a. Traffic Calming	\$ 3,538,811	\$ 16,558,056	\$ 998,776	\$ 12,161,263
b. Bicycle Circulation/Safety	\$ 490,665	\$ 10,138,230	\$ 1,948,758	\$ 8,972,326
c. Pedestrian Circulation/Safety	\$ (218,255)	\$ 9,938,016	\$ 2,061,496	\$ 8,167,707
d. Curb Ramps	\$ 763,969	\$ 8,852,981	\$ 576,636	\$ 7,476,787
e. Tree Planting and Maintenance	\$ 1,091,718	\$ 13,541,222	\$ 1,160,429	\$ 12,751,794
<b>BICYCLE AND PEDESTRIAN IMPROVEMENTS TOTAL</b>	<b>\$ 5,666,908</b>	<b>\$ 59,028,505</b>	<b>\$ 6,746,095</b>	<b>\$ 49,529,877</b>
<b>STREETS AND TRAFFIC SAFETY TOTAL</b>	<b>\$ 23,565,900</b>	<b>\$ 278,462,556</b>	<b>\$ 16,946,511</b>	<b>\$ 232,347,540</b>
<b>D. TRANSPORTATION SYSTEMS MANAGEMENT/STRATEGIC INITIATIVES</b>				
i. Transportation Demand Management/Parking Management	\$ 264,224	\$ 4,500,674	\$ 471,249	\$ 3,744,684
ii. Transportation/Land Use Coordination	\$ 1,925,531	\$ 9,118,721	\$ 1,381,935	\$ 5,293,728
<b>TRANSPORTATION SYSTEMS MANAGEMENT /STRATEGIC INITIATIVES TOTAL</b>	<b>\$ 2,189,755</b>	<b>\$ 13,619,395</b>	<b>\$ 1,853,184</b>	<b>\$ 9,038,412</b>
<b>ADDITIONAL ITEMS</b>				
FY2006 Cowcap Suspension Pool (Distribution based on actual reimbursements)	\$ —	\$ 112,345	\$ —	\$ 112,345
CityBuild Program	\$ —	\$ 1,073,719	\$ —	\$ 1,073,719
<b>GRAND TOTAL</b>	<b>\$ 147,661,764</b>	<b>\$ 1,501,249,719</b>	<b>\$ 111,995,096</b>	<b>\$ 1,037,402,634</b>

# TRANSPARENCY AND ACCOUNTABILITY

## PROP AA

### ACTIVITY DETAIL FOR CALENDAR YEAR 2016

	ALLOCATIONS		EXPENDITURES	
	2016 ALLOCATIONS/ (DE-OBLIGATIONS)	INCEPTION TO DATE ALLOCATIONS	2016 EXPENDITURES	INCEPTION TO DATE EXPENDITURES
Street Repair and Reconstruction	\$ (214,868)	\$ 10,769,455	\$ 2,159,426	\$ 8,234,906
Pedestrian Safety	\$ 1,523,663	\$ 7,561,069	\$ 892,396	\$ 4,570,120
Transit Reliability and Mobility Improvements	\$ 794,980	\$ 4,534,805	\$ 988,247	\$ 2,864,603
<b>GRAND TOTAL</b>	<b>\$ 2,103,775</b>	<b>\$ 22,865,329</b>	<b>\$ 4,040,069</b>	<b>\$ 15,669,629</b>

## Transparency And Accountability

The independent audit team of Vavrinek, Trine, Day & Co., LLP issued an unmodified (also known as a clean opinion/unqualified opinion) audit opinion for the Transportation Authority's financial statements for the fiscal year ending June 30, 2016. In a concurrent review, the auditors also certified that the Transportation Authority complied with the requirements applicable to the use of federal funds. This marks the thirteenth year in a row that the independent auditors have issued clean audit reports.

Pursuant to Government Accounting Standards Board Statement No. 14, the financial statements of the Transportation Authority are included in basic financial statements of the City; however, the Transportation Authority operates as a special purpose government agency under state law. The Transportation Authority is empowered by statute to issue debt in order to finance transportation projects in the voter-approved Prop K Expenditure Plan, and its debt capacity is separate and distinct from that of the City.

## Disadvantaged Business Enterprises And Local Business Enterprise Programs

The Transportation Authority has a strong Disadvantaged Business Enterprise (DBE) program and demonstrated commitment to providing DBEs with the maximum feasible opportunity to participate in the performance of contracts funded with federal, state and local dollars. The Transportation Authority's Local Business Enterprise (LBE) program encourages businesses to locate and remain in San Francisco.

In evaluating DBEs and LBEs, the Transportation Authority recognizes certifications from the California Unified Certification Program, the City and County of San Francisco, and the Small Business Enterprise (SBE) certifications from the California Department of General Services. For firms not already certified by the three agencies mentioned above, the Transportation Authority has adopted a streamlined DBE/LBE certification process.

In February 2016, the Transportation Authority hosted our annual DBE and LBE Upcoming Opportunity Overview and Networking Event. Approximately 49 attendees from 39 companies, consisting of DBEs, LBEs, SBEs, prime consultants, and contractors, attended to learn about upcoming contract opportunities with the Transportation Authority, Treasure Island Mobility Management Agency, San Francisco Municipal Transportation Agency, and the San Mateo County Transit District/Caltrain, in the fields of construction, architecture and engineering, and professional services. The event included representatives from the Office of Small Business, the San Francisco African American Chamber of Commerce, and the Small Business Development Center. After the presentation, we hosted a networking event where DBEs, LBEs, and SBEs met directly with potential prime consultants, contractors, and agency representatives to discuss these and other upcoming opportunities.

DBE, LBE, AND SBE PERFORMANCE FOR TRANSPORTATION AUTHORITY CONTRACTS DURING FISCAL YEAR 2015/16	AMOUNT	PERCENTAGE OF TOTAL INVOICES PAID
<b>TOTAL INVOICES PAID</b>	<b>\$22,986,146</b>	
Total Paid to DBE firms	\$4,552,495	20%
Total Paid to LBE firms	\$5,779,996	25%
Total Paid to SBE firms	\$4,882,556	21%

## Capital Financing and Investment Program

The Transportation Authority had commercial paper notes in place starting in 2004. They provided a low cost of funding relative to other financing alternatives. On June 11, 2015, the Transportation Authority substituted its \$200,000,000 commercial paper notes (Limited Tax Bonds), Series A and B with a \$140,000,000 tax-exempt revolving credit loan agreement, which has resulted in lower financing costs. As of December 31, 2016, \$93,664,165 of the revolving credit loan was outstanding.

In November 2016, Fitch Ratings affirmed the Transportation Authority's implied sales tax revenue bonds with a rating of AA+ and stable outlook based on robust revenue performance, limited exposure to operations, and strong anticipated debt service coverage which is expected to provide an ample cushion during periods of economic decline.

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## TRANSPORTATION AUTHORITY STAFF MEMBERS IN 2016

**TILLY CHANG**, Executive Director  
**MARIA LOMBARDO**, Chief Deputy Director  
**ERIC CORDOBA**, Deputy Director for Capital Projects  
**CYNTHIA FONG**, Deputy Director for Finance & Administration  
**JEFF HOBSON**, Deputy Director for Planning  
**ANNA LAFORTE**, Deputy Director for Policy & Programming  
**JOE CASTIGLIONE**, Deputy Director for Technology, Data & Analysis  
**AMBER CRABBE**, Assistant Deputy Director for Policy & Programming  
**PRIYOTI AHMED**, Transportation Planner, Planning  
**MICHELLE BEAULIEU**, Senior Transportation Planner, Policy & Programming  
**DREW COOPER**, Transportation Planner, Technology, Data & Analysis  
**COLIN DENTEL-POST**, Senior Transportation Planner, Planning  
**KRISTA GAN**, Staff Accountant, Finance & Administration  
**CAMILLE GUIRIBA**, Transportation Planner, Planning  
**ANNA HARVEY**, Senior Engineer, Capital Projects  
**ANDREW HEIDEL**, Senior Transportation Planner, Planning  
**RACHEL HIATT**, Principal Transportation Planner, Planning  
**KALMAN HUI**, Controller, Finance & Administration  
**YVETTE JESSOP-LOPEZ**, Administrative Assistant, Finance & Administration  
**SEON JOO KIM**, Senior Transportation Planner, Policy & Programming  
**WARREN LOGAN**, Senior Transportation Planner, Planning  
**ROBERT MASYS**, Senior Engineer, Capital Projects  
**HENRY PAN**, Staff Accountant, Finance & Administration  
**MIKE PICKFORD**, Transportation Planner, Policy & Programming  
**LINA PLOTNIKOFF**, Staff Accountant, Finance & Administration  
**ERIC REEVES**, Senior Program Analyst, Policy & Programming  
**STEVE REHN**, Senior Transportation Planner, Policy & Programming  
**BHARGAVA SANA**, Transportation Planner, Technology, Data & Analysis  
**MICHAEL SCHWARTZ**, Principal Transportation Planner, Planning  
**JEN SHADER**, Executive Assistant, Executive  
**BRIDGET SMITH**, Senior Graphic Designer, Executive  
**STEVE STAMOS**, Clerk of the Authority, Executive  
**MIKE TAN**, Administrative Engineer, Capital Projects  
**DANIEL TISCHLER**, Senior Transportation Planner, Technology, Data & Analysis  
**ANGELA TSAO**, Administrative Assistant, Finance & Administration  
**ERIC YOUNG**, Senior Communications Officer, Executive  
**LILY YU**, Senior Management Analyst, Finance & Administration  
  
**INTERNS:** Andrew Campbell, Forrest Chamberlain, Derek Cheah, Yiyang Ge, Emily Kettel, Yeying Huang, April Mo, Colin Piethe, Nina Rizzo, Anqi Zhao, Haley Zhao

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## INDIVIDUALS SERVING THE TRANSPORTATION AUTHORITY FOR PART OF 2016

Kelley Beauchamp, Erika Cheng, Sarah Fine, Ryan Greene-Roesel, Vanessa Herrera, Chad Rathman

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## CONSULTANTS ASSISTING THE TRANSPORTATION AUTHORITY DURING 2016

**19TH AVENUE/M-OCEAN VIEW PROJECT:** Parsons Brinckerhoff, Inc.  
**19TH AVENUE COMBINED CITY PROJECT:** Nelson\Nygaard Consulting Associates, Zurinaga Associates  
**ACCOUNTING SERVICES:** Macias, Gini & O'Connell LLP, Yano Accountancy Corporation, Rael & Letson  
**ALEMANY INTERCHANGE IMPROVEMENT STUDY:** Nelson\Nygaard Consulting Associates  
**AUDITORS:** Vavrinek, Trine, Day & Co., LLP  
**BART PERKS:** Barbary Coast Consulting, Parsons Brinckerhoff, Inc.  
**BOND COUNSEL:** Nixon Peabody LLP  
**CAPITAL DEBT PROGRAM:** JP Morgan Chase, N.A., State Street Bank and Trust Company, U.S. Bank  
**CAPTIONING:** Teleperformance RapidText, Inc.  
**CHILD TRANSPORTATION STUDY:** Nelson\Nygaard Consulting Associates  
**COMMUTER SHUTTLES HUB STUDY:** Parsons Brinckerhoff, Inc.  
**ECONOMIC ANALYSIS SERVICES:** Beacon Economics, LLC  
**ENTERPRISE RESOURCE PLANNING SERVICES:** Tyler Technologies, Inc.  
**FINANCIAL ADVISORY SERVICES:** KNN Public Finance, Public Financial Management, Inc.  
**GEARY CORRIDOR BUS RAPID TRANSIT PROJECT:** Arup N. America, Barbary Coast Consulting, Circlepoint, Nelson\Nygaard Consulting Associates  
**GENERAL COUNSEL:** San Francisco Office of the City Attorney  
**HUMAN RESOURCES SERVICES:** Koff & Associates  
**I-280 INTERCHANGE MODIFICATIONS AT BALBOA PARK:** AECOM  
**I-80/YERBA BUENA ISLAND INTERCHANGE IMPROVEMENT PROJECT:** AECOM, Golden State Bridge, Inc., Parsons Brinckerhoff, Inc., WMH Corporation  
**INFORMATION TECHNOLOGY:** Citilabs Inc., RaddOnline, SPTJ Consulting  
**LATE NIGHT TRANSPORTATION STUDY:** Nelson\Nygaard Consulting Associates  
**MANAGING ACCESS TO THE CROOKED STREET:** Nelson\Nygaard Consulting Associates, Stantec Consulting Services Inc.  
**MODEL DEVELOPMENT SERVICES:** Swiftly, Inc., John L. Bowman, LMZ, LLC, Siamak Baradaran  
**PARKING SUPPLY AND UTILIZATION STUDY:** Cambridge Systematics, Parsons Brinckerhoff, Inc.  
**POLLING SERVICES:** Fairbank, Maslin, Maullin, Metz, & Associates, Inc.  
**PRESIDIO PARKWAY (DOYLE DRIVE REPLACEMENT PROJECT):** Arup/PB Joint Venture, Nossaman LLP, Pendergast Consulting Group  
**PRINTING SERVICES:** H-H Imaging, Red Dog Graphics, Watermark Press  
**PROGRAM MANAGEMENT OVERSIGHT:** Zurinaga Associates, VSCE, Inc.  
**SACRAMENTO LEGISLATIVE ADVOCATES:** Smith, Watts & Hartmann  
**SAN FRANCISCO FREEWAY CORRIDOR MANAGEMENT STUDY:** AECOM, City Carshare  
**SAN FRANCISCO TRANSPORTATION PLAN:** Davis & Associates Communications, Inc., Mynest Pty Ltd., Nelson\Nygaard Consulting Associates  
**STRATEGIC COMMUNICATIONS, MEDIA, AND COMMUNITY RELATIONS SERVICES:** Barbary Coast Consulting, Davis & Associates Communications, Inc., JLM Management Group  
**STRATEGIC HIGHWAY RESEARCH PROGRAM 2 IMPLEMENTATION:** Arup N. America, UrbanLabs LLC  
**TRAINING SERVICES:** Eisen Letunic, PSMJ Resources, Inc.  
**TRANSPORTATION AND SPECIAL COUNSEL:** Nossaman LLP, Wendel, Rosen, Black & Dean LLP  
**TREASURE ISLAND MOBILITY MANAGEMENT PROGRAM:** Barbary Coast Consulting, Parsons Brinckerhoff, Inc., Pendergast Consulting Group, Jay Primus, Stantec Consulting Services, Inc.  
**WEBSITE DEVELOPMENT:** Mission Web Works

## REPORT DESIGN

Bridget Smith

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Formed in 1912, by 1918 the city-owned San Francisco Municipal Railway (Muni) was competing with the privately-owned United Railroads of San Francisco (URR) down the length of Market Street. Bringing San Franciscans and visitors downtown from the neighborhoods, the URR and Muni each operated streetcars on their own pair of tracks on Market, which came to be known as the "roar of the four."

Reorganized in 1918, the URR emerged again as the Market Street Railway, but relations with the city were poor, and in 1944, voters elected to purchase its operative properties and the company sold all its assets and operations to Muni.

The four sets of rail tracks terminating in the Ferry Building Transit Loop are visible in this 1953 photo looking up Market Street. The SFMTA is currently in the process of replacing its entire light rail and rubber-tired fleet with new, state-of-the-art vehicles. [See page 40 of this annual report.]

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