THIS PRINT COVERS CALENDAR ITEM NO. : 11

SAN FRANCISCO
MUNICIPAL TRANSPORTATION AGENCY

DIVISION: Sustainable Streets

BRIEF DESCRIPTION:

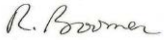
Requesting the San Francisco Municipal Transportation Agency (SFMTA) Board of Directors to adopt the SFMTA 2013-2032 Capital Plan (Capital Plan).

SUMMARY:

- The Capital Plan is a catalogue of SFMTA's anticipated capital needs for the coming 20 years.
- The Capital Plan is fiscally unconstrained, meaning the identified capital needs are not limited to reasonably foreseeable revenues.
- Capital needs in the Capital Plan are prioritized based on the criteria and weights establish by the SFMTA executive team
- Identification of a capital need in the Capital Plan is a preliminary step in the project development lifecycle, but does not commit the Agency to fund or approve any particular project or program.
- The Capital Plan identifies $15,749,175,000 in capital needs over the next 20 years.

ENCLOSURES:

1. Draft SFMTA 2013-2032 Capital Plan

APPROVALS:		**DATE**
DIRECTOR		10/07/13
SECRETARY		10/07/13

ASSIGNED SFMTAB CALENDAR DATE: October 15, 2013

PURPOSE

Requesting the SFMTA Board of Directors to adopt the Capital Plan.

GOAL

The SFMTA will further the following goals of the Strategic Plan through adoption of the Capital Plan:

Goal 2 – Make transit, walking, bicycling, taxi, ridesharing, and carsharing the preferred means of travel

- Objective 2.1: Improve customer service and communications.

Goal 3 – Improve the environment and quality of life in San Francisco

- Objective 3.3: Allocate capital resources effectively.
- Objective 3.4: Deliver services efficiently.

DESCRIPTION

The Capital Plan is a catalogue of the SFMTA's anticipated capital needs for the next 20 years. The development of the Capital Plan included input from Executive Staff, Capital Program Managers, and technical experts throughout the SFMTA. A total of $15,749,175,000 in capital needs have been identified for the next 20 years. These capital needs have been prioritized based on weighted criteria established by the SFMTA Executive Team. As the Capital Plan covers a timeframe that is longer than the SFMTA FY 2013-2018 Strategic Plan (Strategic Plan), the criteria used to prioritize the agency's capital needs are grouped into the four goals established in the Strategic Plan. Capital needs were also classified in one of three categories:

- Maintain: Replacement or rehabilitation of an existing asset
- Enhance: Improvement of an existing asset above and beyond what would occur if rehabilitated or replaced
- Expand: Addition of new capital assets.

Overall, 52 percent of the identified capital needs were in the "maintain" category, while 20 and 28 percent were in the "enhance" and "expand" categories, respectively. This reflects the SFMTA's commitment to achieving a State of Good Repair.

While the Capital Plan is fiscally unconstrained, not limited to reasonably anticipated revenues, identification of a capital need in the Capital Plan is a preliminary step in the SFMTA project development process. For a project to be later considered for funding (including funding for design and environmental review), possible approval, and implementation it must preliminary be identified either individually or as part of a program of capital needs in the 20 year Capital Plan.

ALTERNATIVES CONSIDERED

The SFMTA capital project development process begins with the development of a 20-Year Capital Plan. Before funding can be committed to any capital project in the Five-Year Capital Improvement

Program (CIP) the capital project must first be identified in the 20-Year Capital Plan. Additionally, the 20-Year Capital Plan is needed to inform other local and regional coordinated planning efforts, such as the Sustainable Communities Strategy, the San Francisco Transportation Plan, and the San Francisco Climate Action Plan.

FUNDING IMPACT

The SFMTA 2013-2032 Capital Plan is a fiscally unconstrained plan, meaning the identified capital needs are not limited to reasonably foreseeable revenues, and does not commit the SFMTA to any specific projects. There is no direct funding impact associated with adoption of the Capital Plan.

OTHER APPROVALS RECEIVED OR STILL REQUIRED

The SFMTA Transportation Capital Committee (TCC) played an integral role in the development of the SFMTA 2013-2032 Capital Plan and approved the plan on September 12th.

The Citizens Advisory Committee's (CAC) Engineering, Maintenance, and Safety Committee (EMSC) reviewed the list of capital needs and the full CAC also provided feedback on the SFMTA 2013-2032 Capital Plan.

Because the Capital Plan does not commit the SFMTA to any specific project contained in the Plan, and any project or program contained in the Plan will require additional review, including environmental review, and subsequent approval, staff has determined that approval of the 2013-2032 Capital Plan is not a project under the California Environmental Quality Act, Public Resources Code section 21000 et seq, and is therefore exempt from review. The Environmental Planning Division of the San Francisco Planning Department concurred with this determination.

The City Attorney's Office has reviewed this calendar item.

RECOMMENDATION

Staff recommends that the SFMTA Board of Directors adopt the SFMTA 2013-2032 Capital Plan.

SAN FRANCISCO
MUNICIPAL TRANSPORTATION AGENCY
BOARD OF DIRECTORS

RESOLUTION No. _____

WHEREAS, The SFMTA 2013-2032 Capital Plan (Capital Plan) is a catalogue of the SFMTA's capital needs for the coming 20 years; and

WHEREAS, The Capital Plan is fiscally unconstrained, meaning the identified capital needs are not limited to reasonably foreseeable revenues; and

WHEREAS, The capital needs have been prioritized by SFMTA technical experts based on weighted criteria established by the SFMTA Executive Team; and

WHEREAS, Identification of a capital need in the Capital Plan is a preliminary step in the SFMTA project development lifecycle, but does not commit the SFMTA to adopt or implement any particular project; and

WHEREAS, The total cost of the capital needs identified in the Capital Plan is $15,749,175,000; now, therefore be it

RESOLVED, That the SFMTA Board of Directors adopts the SFMTA 2013-2032 Capital Plan.

I certify that the foregoing resolution was adopted by San Francisco Municipal Transportation Agency Board of Directors at its meeting of October 15, 2013.

_____
Secretary to the Board of Directors
San Francisco Municipal Transportation Agency

SFMTA

Municipal Transportation Agency

SFMTA 2013-2032 Capital Plan

September 2013

Prepared by: **San Francisco Municipal Transportation Agency**

Foreword

The San Francisco Municipal Transportation Agency's (SFMTA) primary mission – to provide excellent transportation choices - is supported by the city's Transit First Policy, which directs people to more sustainable modes of transportation, such as transit, bicycling, walking, and ridesharing. The SFMTA's Capital Plan describes the capital investments needed to provide a transportation system that is safe, reliable, and improves the quality of life in San Francisco. Guided by the SFMTA's Strategic Plan, the Capital Plan provides an initial prioritization for future capital investments.

Recognizing that transportation is a critical element in creating and sustaining an economically vibrant and livable city, earlier this year San Francisco Mayor Ed Lee convened a Transportation Task Force to identify much needed reinvestment in the city's transportation infrastructure. After years of underinvestment in the transportation system, the Task Force will identify new sources of funding for the capital investments needed to maintain, enhance and expand the transportation network in San Francisco.

By identifying the transportation investments needed over the next 20 years, the SFMTA is working to ensure the city has excellent transportation choices today and in the future.

Introduction and Overview

Introduction to the SFMTA

The San Francisco Municipal Transportation Agency (SFMTA) is responsible for planning, implementing, maintaining and operating multimodal transportation services in the City and County of San Francisco. The city's transportation system includes transit, paratransit, streets, bicycle and pedestrian facilities, parking, traffic controls, and taxi services.

The largest component of the SFMTA's operations is providing public transportation. San Francisco is a 47 square mile area with a resident population of 805,000 and a daytime population of over 1 million. The city's average density of over 17,000 people per square mile creates a vibrant transit environment. Based on ridership, the SFMTA is the Bay Area's largest transit operator, transporting close to 43 percent of all transit passengers in the nine-county region; and is the country's eighth largest transit operator, carrying more than 700,000 trips every weekday (about 220 million trips per year). SFMTA is also responsible for the planning and design of bicycle and pedestrian infrastructure. Seventeen percent of all trips citywide are walking trips and the number of trips by bicycle has increased by 71 percent since 2006. The SFMTA also regulates the taxi industry, providing long-term planning and improved coordination with other modes. Needless to say, this movement of people and goods requires significant infrastructure. Figure 1 provides an overview of the capital assets SFMTA is responsible for.

Figure 1: SFMTA Asset Summary

Figure 2: Taxis at San Francisco International Airport

Furthermore, the agency engages communities around San Francisco to coordinate development

efforts, station area plans and transportation improvements. The SFMTA is a major component of the economic engine of San Francisco, and supports the quality of life its residents and visitors enjoy.

Purpose and Use of the Capital Plan

The Capital Plan is the catalogue of the SFMTA's anticipated capital needs for the upcoming 20 years. It is a financially unconstrained plan and includes capital project needs for which funding has not yet been committed. The purpose of the plan is to identify the agency's capital investment needs and establish which investments are the highest priorities for the agency. All of the agency's investment decisions, grant applications, and project prioritization rely upon the programs described in this plan.

Figure 3: Rail Replacement at Church and Duboce streets

A major component of the Capital Plan is the identification of existing assets in need of replacement in the next 20 years. The 2010 SFMTA State of Good Repair Report was the first modern accounting of all the agency's assets and their replacement costs. SFMTA has continued to refine this information and plans to implement a comprehensive Enterprise Asset Management System in the coming years. In the meantime, the quality of data and level of detail used in assessing the agency's state of good repair needs will continue to evolve.

The Capital Plan is used by all levels of SFMTA staff, local and regional transportation funding and policy bodies, other City and County of San Francisco Departments, advocacy and stakeholder groups, and the general public. Additionally, the Capital Plan is used as an input to other planning documents. Although inclusion in the Capital Plan does not guarantee funding or approval of any particular project or program contained within it, having clear and consistently stated capital needs are critical to SFMTA's ability to secure federal, state, regional, and local funding. The Capital Plan also provides the basis from which SFMTA advocates for capital funding needs to governing bodies.

Relationship to Other Plans

The 20-year Capital Plan provides the foundation for developing the fiscally-constrained Five-year CIP and the Two-year Capital Budget. While the Capital Plan includes all projects identified to help the agency meet its long-term and strategic goals, the Five-year Capital Improvement Program and the Two-year Capital Budget are restricted by anticipated funding and resources. A comparison of

the 20-year Capital Plan, Five-year CIP, and Two-year Capital Budget is provided in Table 1

SFMTA Five-year Capital Improvement Program (CIP) - The Five-year CIP represents capital projects that can reasonably be assumed to be funded and active in the next five years. This programming document establishes the funding that the SFMTA expects to receive within the five year timeframe. While not a guarantee of funding or approval, the CIP conveys specific commitments from funding agencies to support the SFMTA's highest priority and most ready capital improvements. To be considered for inclusion in the CIP, a project must be included in the Capital Plan. Once included in the CIP, the project is removed from the Capital Plan, as it is assumed to be funded in the next five years.

SFMTA Two-year Capital Budget - The Two-year Capital Budget represents capital projects that can reasonably be assumed to be funded in the next two years. The same conditions for inclusion in the Five-year CIP apply to the Two-year Capital Budget, with the first two years of the Five-year CIP constituting the Two-year Capital Budget.

Table 1: Comparison of Capital Planning Documents

	Capital Plan	Capital Improvement Program	Capital Budget
Fiscal Constraints	None	Revenue Forecast	Revenue Forecast
Time Period	20 years	5 years	2 years
Project Funding Level	Funding not committed	At least 90% committed	At least 90% committed
Specificity	Most projects grouped into programs	Identifies specific projects by phase	Identifies specific projects by phase

Development of the Capital Plan

Transportation Capital Committee

The Transportation Capital Committee (TCC) is responsible for establishing, amending and implementing the 20-year Capital Plan, Five-year CIP, and Two-year Capital Budget. The TCC meets monthly and is comprised of representatives from each of the SFMTA's capital program areas. Any new capital projects or changes to existing ones must be approved by the TCC.

Figure 4: Maintenance of a Light Rail Vehicle

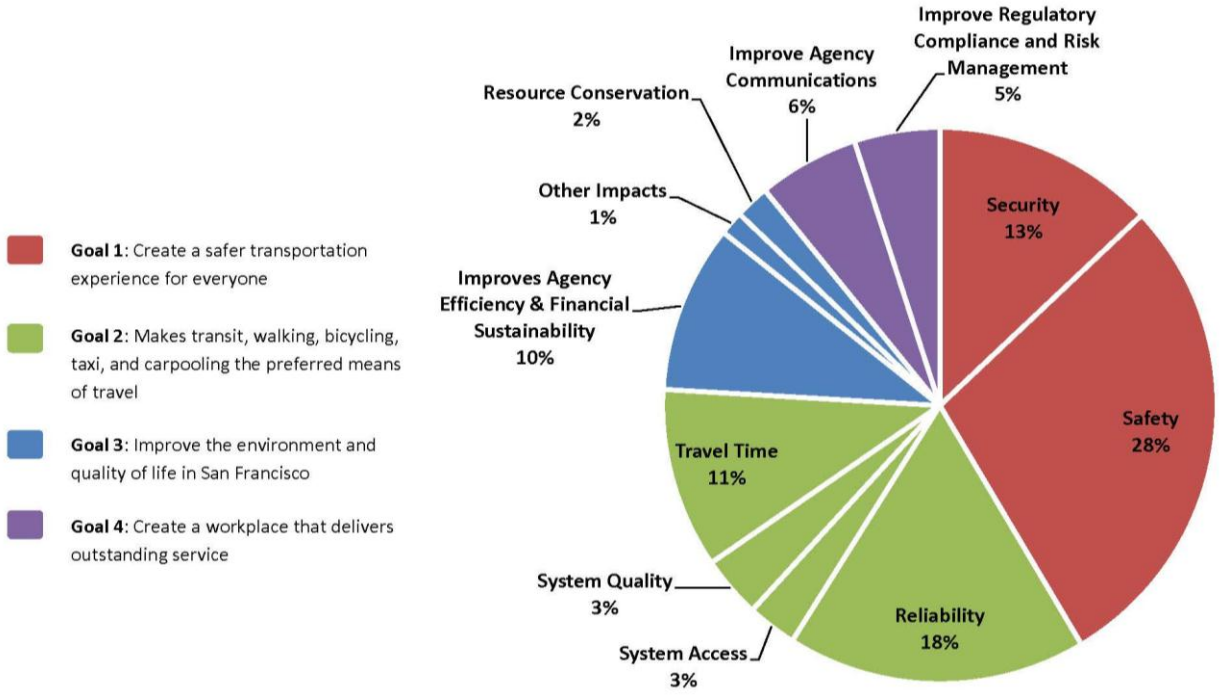
The policies that govern the TCC and capital program changes are meant to ensure that all functional areas within the SFMTA are considered when capital decisions are made. Proper management and development of the SFMTA's Capital Plan and CIP ensures that agency staff, the Board and the agency's stakeholders have a clear understanding of the transparent decision-making process used to determine the agency's capital priorities. The TCC allows for better project integration within the SFMTA by creating a clearinghouse to review, revise and recommend project scopes with the goal of timely project delivery and developing more multi-modal projects. This results in a more efficient use of staffing and financial resources.

Capital Plan Development Process Overview

The capital projects included in this Capital Plan were identified through a three step process: prioritization criteria development and weighting, identification and review of capital needs, and prioritization of capital needs. After completion of these steps the TCC follows an established process to both adopt and amend the Capital Plan.

Capital Plan Development Process - Criteria Development and Weighting

The Capital Plan was last adopted by the SFMTA Board of Directors in January 2012. Since that time, the SFMTA has also adopted a new Strategic Plan. The Strategic Plan establishes the goals, objectives, and metrics that will focus the agency's efforts from Fiscal Year (FY) 2013 through FY 2018. The Executive Team established the capital prioritization criteria based on agency plans, goals, adopted policies, and the Strategic Plan. They also measured the relative importance of each criterion through the application of a pair-wise comparison technique. This enables decision-makers to express their judgments concerning the relative importance of each individual criterion. This was accomplished in a workshop setting, where the directors used real-time information gathering to display preferences. Figure 5 illustrates the top-level evaluation criteria and their weights. Appendix A provides detailed descriptions of the SFMTA capital project evaluation criteria and the rating scales. These criteria and rating scales were employed by a group of staff experts for each Capital Program to evaluate each capital project within the respective Capital Program.



Prioritization Criteria	Percent Weight

Prioritization Criteria	Percent Weight
Security	13%
Safety	28%
Reliability	18%
System Access	3%
System Quality	3%
Travel Time	11%
Improves Agency Efficiency & Financial Sustainability	10%
Other Impacts	1%
Resource Conservation	2%
Improve Agency Communications	6%
Improve Regulatory Compliance and Risk Management	5%

Figure 5: Capital Prioritization Criteria and Weights

Capital Plan Development Process - Project Submissions, Refinement, & Review

Capital Program Managers, project managers, and staff throughout the agency were provided the opportunity to review the existing capital needs and provide updates where appropriate. The primary focus of this update was to remove those projects that have been funded or completed, refine the previously identified needs, and make the Capital Plan consistent with SFMTA's formal plans, such as the Bicycle Strategy and Real Estate Vision for the 21st Century. Once complete, the project descriptions, justifications, and cost information were reviewed and any additional information necessary was requested prior to the prioritization step. A summary of the types of capital investments included in each program and the source of these capital needs is discussed below.

Accessibility: The Accessibility Program includes investments that improve access for all users of the transportation system and compliance with the Americans with Disabilities Act. The "Key Stop Plan" identified the need for additional wayside lifts or ramps within the rail network and additional elevators to support full compliance with the Americans with Disabilities Act at Muni Metro stations. In addition, the design of many capital projects includes elements of accessibility needs such as level boarding on all new trolley and motor coach vehicles, improved communications at stations, pedestrian bulbs and ramps, and audible pedestrian signals.

Bicycle: The Bicycle Program is primarily composed of capital investments identified in the SFMTA Bicycle Strategy (2013). This includes upgrading existing facilities to protected lanes or cycle tracks where appropriate, expanding the existing bicycle network, providing short- and long-term bicycle parking, expanding the existing bicycle sharing system, and intersection improvements for bicycles. The existing bicycle network was analyzed to determine what level of these investments would produce a bicycle network that would provide a comfortable bicycle trip for majority of residents and visitors of San Francisco.

Figure 6: SFMTA Bicycle Strategy

Facility: The Facility Program includes the rehabilitation and replacement of SFMTA's buildings, yards, transit stations, and other agency facilities to provide for increased operational and financial efficiency. The Real Estate Vision for the 21st Century outlines a program of projects to rehabilitate and modernize SFMTA's operations facilities, and provide the facilities necessary to accommodate the anticipated growth in San Francisco and the region.

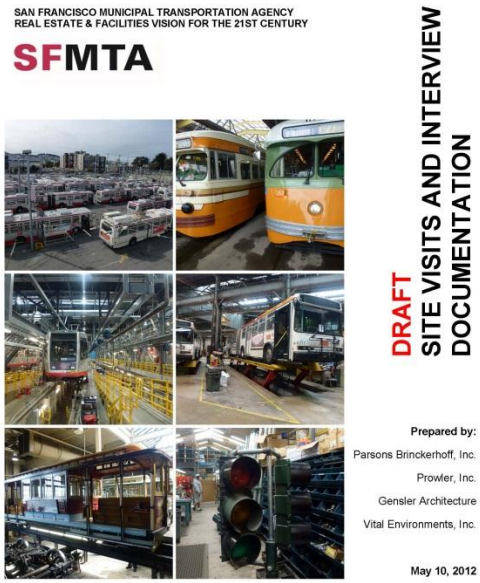


Figure 7: SFMTA Real Estate Vision for the 21st Century

Fixed Guideway: The Fixed Guideway Program is comprised primarily of the infrastructure that supports the movement of rail vehicles and trolley buses. This includes rail, overhead wires, wire support poles, electrical substations, and the communication and control systems. These capital needs are derived primarily from the state of good repair program.

Fleet: The Fleet Program focuses on the replacement, maintenance, and expansion of revenue (transit) and non-revenue (support) vehicles. Special fleet equipment is also included, such as Transit Only Lane Enforcement (TOLE) Cameras and Automatic Passenger Counters (APCs). The long-term transit fleet needs are documented in the Transit Fleet Management Plan (TFMP), which is currently under development and anticipated to be complete in October of 2013.


SFMTA | Municipal Transportation Agency

2010
SFMTA TRANSIT FLEET
MANAGEMENT PLAN

Prepared by:
San Francisco Municipal Transportation Agency

Revised April 2011

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Figure 8: SFMTA Transit Fleet Management Plan

Information Technology & Communications: The Information Technology and Communications Program focuses on implementing systems improvements that enhance SFMTA's operational and financial efficiency. Major efforts include the implementation of an Enterprise Asset Management system that builds on the current state of good repair program and customer focused communications technology improvements.

Parking: The Parking Program includes two primary areas of focus: the maintenance of existing parking facilities and expansion of the SFpark parking management system. Maintenance of the existing parking facilities includes seismic and structural retrofits, upgrading the parking fee collection system, and modernization of the facility support systems (Heating Ventilation and Air Conditioning, solar panels, fire & life safety, etc.). The SFpark expansion focuses on replacing existing mechanical parking meters with electronic meters that accept multiple forms of payment and that allow for demand based pricing adjustments.

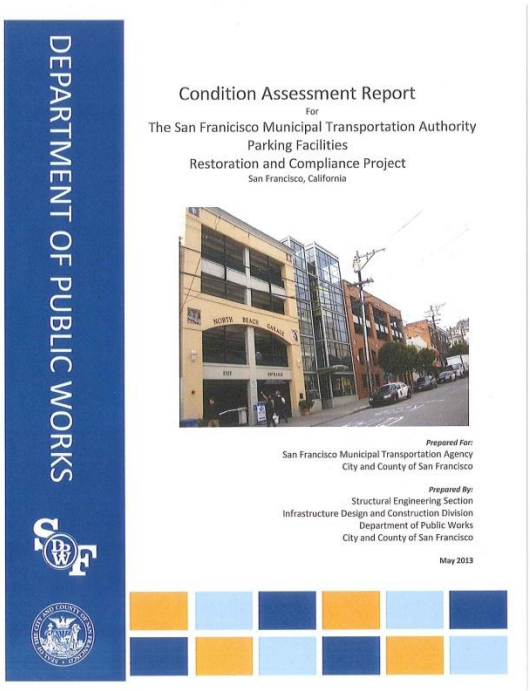


Figure 9: SFMTA Parking Facilities Assessment

Pedestrian: The Pedestrian Program focuses on the implementation of the San Francisco Pedestrian Strategy (2013), which includes streetscape enhancements, bulbouts, crosswalks and pedestrian activated signals, among other elements, with a primary goal to improve the safety of San Francisco's streets.

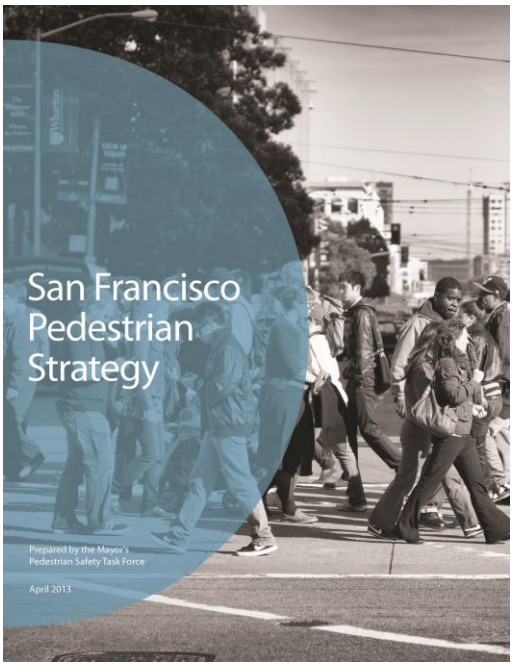


Figure 10: San Francisco Pedestrian Strategy

Safety: The Safety Program focuses on improving the safety of SFMTA facilities and educating SFMTA employees and the general public on traveling safely. Facilities investments include

replacement of Occupational Safety and Health Administration required safety devices and health and life safety systems. Educational investments include transit operator simulators and a bicycle safety education program.

Security: The Security Program is comprised of emergency and disaster response equipment and training, facility site hardening, and enhanced security systems. The Security Program capital needs are primarily identified through Transportation Security Administration Threat and Vulnerability Assessments (TVA), other security focused exercises, and best practices in transportation system security.

Taxi: The Taxi Program is composed of primarily customer focused improvements, such as new taxi toplights, increased number of taxi stands, and bicycle racks for taxis. Although currently under development, these capital needs were informed by a forthcoming Taxi Strategy

Traffic Calming: The Traffic Calming Program includes road diets, narrowing travel lanes, speed humps, signage, and landscaping along arterial and commercial corridors, specific locations in neighborhoods, and surrounding schools.

Traffic Signals: The Traffic Signals Program focuses on the maintenance and expansion of traffic control equipment (signals and signs) and implementation of a citywide intelligent transportation management system (SFgo).

Transit Optimization and Expansion: The Transit Optimization and Expansion Program includes improvements along existing bus and rail transit routes and expansion of transit service along corridors with anticipated ridership growth. The capital needs in the program come from a wide range of plans including the Four Corridors Plan (1995), Transit Effectiveness Project, development agreements, and regional planning efforts.

Figure 11: Transit Effectiveness Project

Capital Plan Development Process- Prioritization

SFMTA is unique in its multi-modal responsibility and the breadth of capital needs, which provides a challenge in crafting agency-wide criteria. a web-based decision making tool called Decision Lens provided quantitative analysis of qualitative measures in a transparent and participatory process in which all scoring participants can interact and see results in real-time. Using Decision Lens involves identifying and prioritizing a set of criteria, quantifying rating scales, and rating transportation projects with weighted scores. This rating of transportation projects occurred at the Capital Program level and was conducted by subject matter experts for each Capital Program. The outcome of the decision process is a quantitative measure of the relative importance of each project within a specific Capital Program, which was reviewed by the TCC.

Results of the Capital Plan

The result of this capital planning process is the prioritized list of financially unconstrained projects included in Appendix B. The capital needs are organized by Capital Programs and by the relative rank of each capital project. The Finance and Information Technology Division at SFMTA uses these capital programs to organize and allocate funding in the CIP. Each capital program has been assigned a Capital Program Manager by the SFMTA Division Directors. The Capital Program Managers are tasked with overseeing each capital program to ensure that projects are prioritized to meet the agency's needs and that the funding, planning, review (including environmental review), design, and delivery of each project progresses with the greatest fiscal and chronological efficiency possible. The total capital needs of each Capital Program are shown in Table 2. Overall, the 2013-2032 Capital Plan identifies nearly $15 billion in capital needs.

Table 2: Capital Needs by Capital Program

Capital Program	Capital Need ($000s)
Accessible Services	$73,200
Bicycle	$582,350
Communications and Information Technology	$88,100
Facility	$1,759,100
Fixed Guideway	$1,994,000
Fleet	$4,104,250
Parking	$467,900
Pedestrian	$371,815
Safety	$51,700
Security	$56,535
Taxi	$2,875

Capital Program	Capital Need ($000s)
Traffic Calming	$344,300
Traffic Signals & Signs	$463,580
Transit Optimization & Expansion	$5,389,320
Total	**$15,749,025**

Capital Needs by Investment Types

Another way to look at the SFMTA's capital needs is by the type investment. Generally, capital investments fall into one of three categories: maintain, enhance, or expand. These investment types apply to vehicles, facilities and infrastructure. Maintenance of existing assets are generally higher priorities than system enhancements and expansion. Each project summarized in the plan is identified as one of these types of investments:

Maintain: Includes projects that replace existing assets that have reached or are beyond their useful life (e.g. signal replacement). It also features projects that rehabilitate or renovate existing assets to continue the use of the asset, such as major improvements to an asset that extend the useful life. (e.g. bus mid-life overhauls).

Enhance: Includes improvements to the quality of the existing transit or multi-modal system, thereby improving system reliability and service delivery. This would include projects that upgrade systems or enhance the features of an existing asset (e.g. transforming a Class II bike lane to a cycletrack).

Expand: Includes projects that augment and increase capacity of the existing transportation system. Results typically include growing ridership, system reliability and service delivery. (e.g. extending transit service to a new area or increasing the bicycle network mileage. Planning studies to expand existing transit services and systems also fall into this category).

Capital projects by investment types are depicted in Figure 12. Over half of the identified capital needs are for maintenance projects which comprise the agency's state of good repair program.

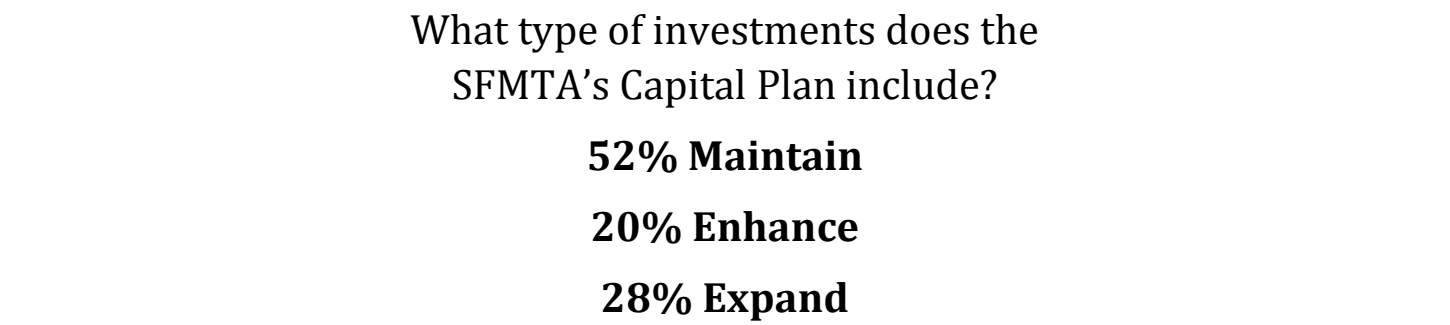


Figure 12: Capital Needs by Investment Type

Next Steps

Capital Plan, Capital Improvement Program, Capital Budget

All projects seeking capital funding must be included in the Capital Plan. Whereas the Capital Plan includes all of the potential investments the SFMTA could make, the Capital Improvement Program (CIP) and Capital Budget must be financially constrained, and only projects and phases that are substantially funded can move forward for further review and approval. The Capital Plan provides the basis for prioritizing the projects for inclusion in the Five-year CIP and Two-year Capital Budget.

The Transportation Capital Committee (TCC) is responsible for recommending which capital projects from the Capital Plan should advance for funding and implementation through the inclusion in the CIP based on a number of factors:

Project Priority - The relative ranking of a project within a capital program.

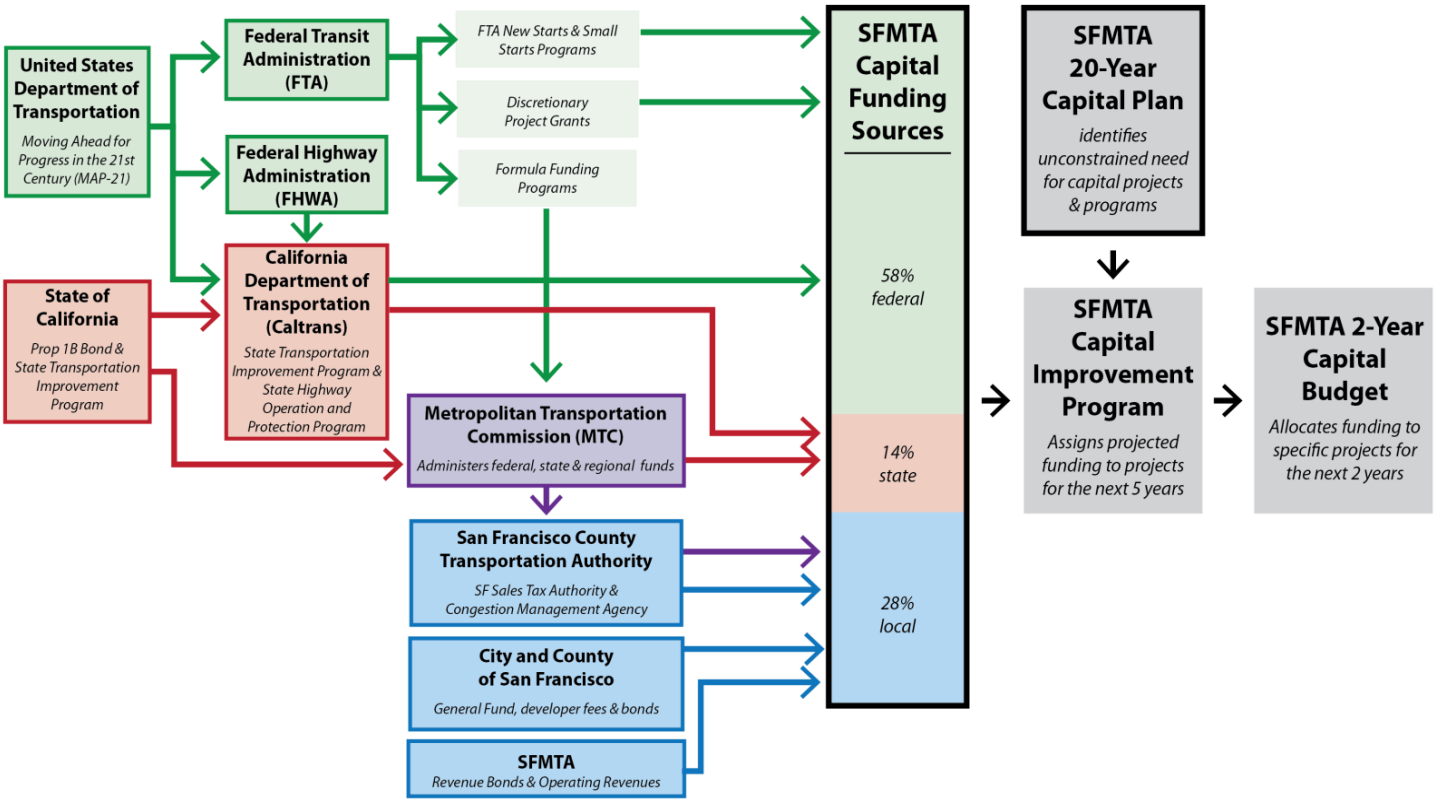
Project Readiness – Has the project been reviewed for environmental impacts under State and/or Federal law; does it have public support, or is it needed for another project to proceed.

Funding Alignment and Opportunities - Coordination with other projects or funding proposals provides the opportunity for advancement due several potential factors:

- proximity to other projects to avoid multiple construction disruptions in the same location.
- enhancing multi-modal traffic, connections, and quality of life.
- transit optimization or use of bus substitutions during construction.
- cost savings through economies of scale. and
- project management and oversight cost savings.

Special Conditions - Some projects are needed to satisfy legal requirements or some grants require project implementation and construction to occur within a given time frame.

The first two years of the CIP constitute the Two-year Capital Budget. The Two-year Capital Budget further refines the Five-year CIP to account for the timing of budget allocations, individual capital grants and the availability of capital project implementation staff. It is presented to the SFMTA Board for approval on a two-year cycle, concurrent with the SFMTA Operating Budget. The TCC has begun evaluating projects based on the criteria above and the revenue forecasts provided by the Finance and Information Technology Division of the SFMTA. The updated CIP/Capital Budget must be delivered to the SFMTA Board of Directors no later than April 2014. Figure 13 provides an overview of the multiple funding streams and their relationship to the Capital Plan, Five-year CIP and Two-year Capital Budget.



Capital Project Development Lifecycle

The Capital Plan, CIP, and Capital Budget are important milestones in project development. There are many additional steps in the capital project lifecycle. Figure 14 provides an overview of the typical capital project lifecycle. Although individual projects may slightly deviate from this lifecycle, the major milestones hold true for a vast majority of the wide range of projects overseen by SFMTA.

Most large-scale SFMTA capital projects move from a project idea to implementation through four primary phases – Identification, Funding, Evaluation & Approval, and Implementation. Large, capital intensive projects such as a Bus Rapid Transit project can take 6-10 years or more to complete. Smaller, less capital intensive projects typically take 2-3 years.

Public involvement is a hallmark of the SFMTA's project development process, particularly during the Evaluation & Approval stage, when projects are typically undergoing environmental review, accepting feedback on conceptual designs and engaging in public hearings. It is during this stage that the SFMTA would seek approval from its Board of Directors, and in some cases, the Board of Supervisors.

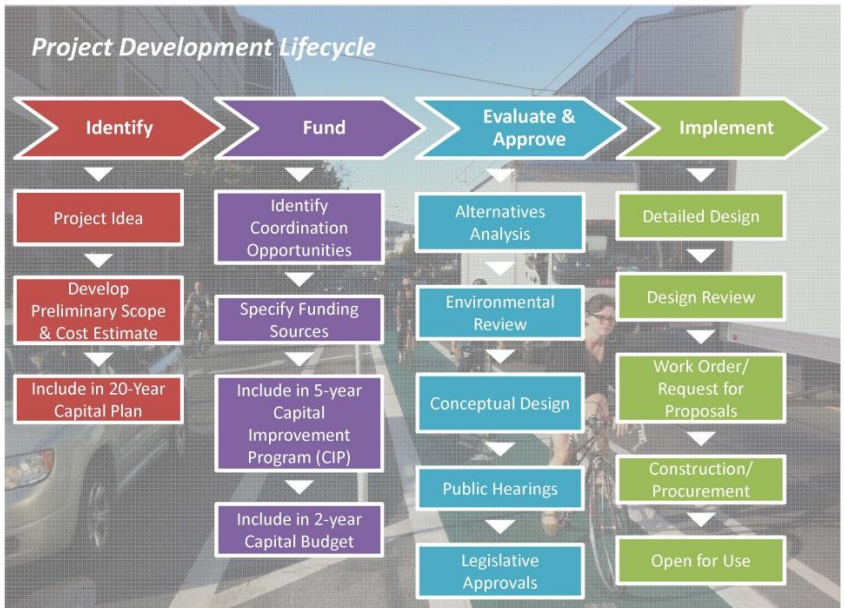


Figure 13: SFMTA Project Development Lifecycle

APPENDIX A: CAPITAL PRIORITIZATION CRITERIA AND RATING SCALES

Goal 1: Create a safer transportation experience for everyone.

Security: Protects the transportation system and Agency assets from potential threats. Reduces system and asset vulnerability (frequency or severity) due to collisions, vandalism, theft, security threats, or natural causes (earthquakes, adaptation to climate change).

Rating	Weight	Definition
Major/Critical	**1.00**	**The project directly improves a documented security risk related to the physical plant or systems used by the public or employees on a daily basis. Greater resiliency to earthquakes or adaptation to climate change is possible.**
Medium/Important	**0.50**	**The project contributes to improving current security conditions and reducing risks related to the physical plant; without the project, current risk exposures may increase.**
Moderate/Useful	**0.25**	**The project prevents security conditions from deteriorating and is expected to make a moderate difference to overall conditions.**
Minor/Neutral, Negative, or Unknown	**0.00**	**The project is not expected to improve current conditions and its impacts on the Agency's security goals are not generally measurable.**

Safety: Reduces incidents and injuries. Provides transportation services that address and minimize safety risks.

Rating	Weight	Definition
Major/Critical	**1.00**	The project directly improves and mitigates documented unsafe condition for employees or the public; the project improves or restores a service/"safety-critical" asset.
Medium/Important	**0.50**	The project is expected to reduce incidents and injuries.
Moderate/Useful	**0.25**	The project maintains current safety conditions.
Minor/Neutral, Negative, or Unknown	**0.00**	The project is not expected to improve current conditions and its impacts on the Agency's safety goals are not generally measurable.

Goal 2: Make transit, walking, bicycling, taxi, and carpooling the preferred means of travel.

Reliability: Meets core operational Agency performance objectives. Improves transit on-time performance, reduces travel time variability, or improves multi-modal trip predictability. Provides a system that can be reliably used by all. Provides for the proper functioning of transportation assets.

Rating	Weight	Definition
Major/Critical	**1.00**	The project directly improves on-time performance, reduces travel time variability, or improves multi-modal trip predictability across or within a defined major corridor or major travel market; the project is based on documented forecasts or estimates of system performance.
Medium/Important	**0.50**	Within high use segments of a corridor or a specific travel market, the project improves on-time performance, reduces travel time variability, or improves multi-modal trip predictability.
Moderate/Useful	**0.25**	The project contributes to moderate improvements in OTP, travel time variability, or predictability, possibly as a limited component of a project.
Minor/Neutral, Negative, or Unknown	**0.00**	The project is not expected to improve current conditions and its impacts on the Agency's core operational performance standards are not generally measurable.

System Quality: Improves the quality (comfort, attractiveness and cleanliness) of the transportation system. Supports the development of a seamless, multi-modal transportation system. Enhances multi-modal transfers, improves information and transfer arrangements. Provides or enhances pedestrian-oriented public spaces.

Rating	Weight	Definition
Major/Critical	**1.00**	The project will result in a discernible, major improvement in the quality of customer-experienced use of the transportation system or related public amenities, e.g., comfort, attractiveness and cleanliness.
Medium/Important	**0.50**	The project will make improvements to the customer-experience of the transportation system or related public amenities, e.g., comfort, attractiveness and cleanliness.
Moderate/Useful	**0.25**	The project will maintain and continue the current customer-experience of the public transportation systems or related public amenities. It may include quality enhancements that are a limited component of overall transportation improvement projects.
Minor/Neutral, Negative, or Unknown	**0.00**	The project will not impact the Agency's quality goals.

System Access: Enhances system access and accessibility by incorporating principles of universal design. Provides access, including access for persons with disabilities, where it does not exist or where existing conditions are substandard including wayfinding and interconnectivity

Rating	Weight	Definition
Major/Critical	**1.00**	The project makes major barrier-free access improvements for a large customer base or at high-use segments of the transportation system for people with disabilities, while improving access for all customers.
Medium/Important	**0.50**	The project makes important barrier-free access improvements to the transportation system for all customers.
Moderate/Useful	**0.25**	The project will make a moderate improvement in barrier-free access to the transportation system for people with disabilities, while improving access for all customers, possibly as a limited component of a project.
Minor/Neutral, Negative, or Unknown	**0.00**	The project is not expected to improve current conditions and its impacts on the Agency's access/accessibility goals are not generally measurable.

Travel Time: Reduces travel time for transit, pedestrians, bicyclists or carpooling, including taxis. Removes or limits sources of delay through resolving a gap in rights of way, improving connectivity, physical service or expanding existing rights of way or service.

Rating	Weight	Definition
Major/Critical	**1.00**	The project reduces travel time and delays for a major travel market. The improvements appear to be a real opportunity to maintain or increase ridership. Possible time savings could be > 4% over current conditions (for transit, pedestrian, bicyclist or carpooling).
Medium/Important	**0.50**	The project would reduce travel time/improve connectivity for a distinct travel market or corridor. Time savings could be close to or > 2% over current conditions for transit, pedestrian, bicyclist or carpooling.
Moderate/Useful	**0.25**	The project will help reduce delays/improve connections for transit, pedestrians, bicyclists or carpooling over current conditions, possibly as a limited component of a project.
Minor/Neutral, Negative, or Unknown	**0.00**	The project is not expected to improve current conditions and its impacts on the Agency's travel time goals are not generally measurable.

Goal 3: Improve the environment and quality of life in San Francisco.

Efficiency & financial sustainability: Results in a positive impact on SFMTA's transportation operating budget. Directly results in a net decrease in operating and/or maintenance costs for the Agency to operate the transportation system. Avoids potential cost increases. Enhances the ability of the Agency to deliver capital improvements in a timely manner. Directly generates additional revenue or provides a direct operating subsidy for the Agency.

Rating	Weight	Definition
Major/Critical	**1.00**	The project reduces O&M costs, avoids new cost, or provides opportunity for new revenue from existing or new sources. The project has potential to make a substantial difference to annual costs, operating ratios, or revenue (i.e. attract unique funding grants) within a given work area or even a Division; some benefits such as added efficiencies could be ongoing and long term.
Medium/Important	**0.50**	The project could help to avoid O&M costs increases; or may create an opportunity for new revenue. The project could ensure current or improved service, revenue or other positive results with less cost.
Moderate/Useful	**0.25**	The project maintains current O&M costs while resulting in equal or enhanced conditions; it supports maintaining current revenue.
Minor/Neutral, Negative, or Unknown	**0.00**	The project is not expected to improve current conditions and its impacts on the Agency's financial goals are not generally measurable.

Other Environmental Impacts: Creates a positive transportation impact to communities. Reduces glare, vibration, waste, air, water and noise pollution during construction and operation.

Rating	Weight	Definition
Major/Critical	**1.00**	The project would substantially reduce the impact of operations on a major corridor or area or make measurable reductions in construction impacts. The public or employees would clearly benefit from the project reducing glare, vibration, waste, air, water or noise pollution.
Medium/Important	**0.50**	The project would reduce the impact of operations at a specific location and/or reduce impacts of construction at a noticeable level.
Moderate/Useful	**0.25**	The project is expected to marginally reduce impacts during construction and operations that may include glare, vibration, waste, air, water and noise pollution.
Minor/Neutral, Negative, or Unknown	**0.00**	The project is not expected to improve current conditions and its impacts on the Agency's environmental impact goals are not generally measurable.

Resource Conservation: Reduces the SFMTA's use of non-renewable resources. Optimizes the use of sustainable resources and improves energy efficiency of the transportation sector to protect against the impacts of climate change.

Rating	Weight	Definition
Major/Critical	**1.00**	The project could improve the use of renewable resources, improve energy efficiency or reduce greenhouse gas emissions at a system wide or area level. The improvements from this one project could be an example or prototype for future sustainable infrastructure projects or support "green" best practices in the next several years. This could include projects supporting transit-oriented development.
Medium/Important	**0.50**	The project supports use of sustainable resources, increased energy efficiency, or reduction of greenhouse gas emissions as a significant component of a project.
Moderate/Useful	**0.25**	The project supports use of sustainable resources/ energy efficiency, possibly as a limited component of a project.
Minor/Neutral, Negative, or Unknown	**0.00**	The project is not expected to improve current conditions and its impacts on the Agency's conservation goals are not generally measurable.

Goal 4: Create a workplace that delivers outstanding service.

Transparent Communications: Provides clear information (internally and externally) and improves accountability.

Rating	Weight	Definition
Major/Critical	**1.00**	The project directly improves the transparency of communications, both internally and externally, resulting in increased accountability across the Agency.
Medium/Important	**0.50**	The project improves the transparency of communications within a division or other section of the Agency, or between the Agency and a portion of the external audience.
Moderate/Useful	**0.25**	The project contributes to improvements in communications at the sub-division level, and likely has no impact at the agency level or on external communications.
Minor/Neutral, Negative, or Unknown	**0.00**	The project is not expected to improve current conditions and its impacts on the Agency's communications goals are not generally measureable.

Regulatory Compliance & Risk Management: Achieves regulatory compliance or mitigates potential risk (organizational, financial, community, etc.).

Rating	Weight	Definition
Major/Critical	**1.00**	The project directly and measurably improves the Agency's ability to meet regulatory compliance and/or effectively manage risks across the agency.
Medium/Important	**0.50**	The project improves regulatory compliance and/or risk management in a quantitative manner in a specific division or area of the Agency.
Moderate/Useful	**0.25**	The project is expected to qualitatively improve the Agency's ability to meet regulatory compliance requirements or to manage risk at the division or sub-division level.
Minor/Neutral, Negative, or Unknown	**0.00**	The project is not expected to improve the level of regulatory compliance or provide any mitigation or management of risks the Agency faces.

Accessible Services Program Descriptions and Prioritization Scores

Number	Name	Description	Justification	Investment Type	Cost	Priority Score
1	ESCALATOR & ELEVATOR REHABILITATION (Program)	Rehabilitation of street and platform elevators at Muni-only transit stations. Project includes 12 elevators that will be upgraded with new cabs, glass-paneled doors, door operators, hydraulics, controllers and cameras. The rehabilitation will not bring the elevators into ADA compliance. Existing escalators in transit stations will be rehabilitated or replaced to conform to current building codes and incorporate modern safety features. Project includes a total of 23 more escalators (five outdoor escalators have already been rehabilitated).	The project will improve the reliability of station elevators and escalators and ensure consistent and safe access to stations for persons with disabilities.	Maintain	$30,400,000	52
2	ACCESSIBLE LIGHT RAIL STOPS (Program)	The project will identify locations for and construct accessible light rail stops beyond those required by the FTA approved Key Station Plan. The project will evaluate proposed stop locations in the "2nd Tier" key stop list, as well as locations recommended in the TEP and locations requested by the disability community, and identify and prioritize 5-10 locations where it is feasible to construct new accessible platforms. It will plan, design and construct one key stop per year.	This project will improve passenger access to light rail transit, particularly for people with mobility impairments.	Enhance	$13,750,000	51
3	MUNI METRO ELEVATOR AUGMENTATION (Program)	Install new ADA compliant street and platform elevators at Muni-Only Metro Stations and at shared Muni/BART Stations. 16 elevators would be installed at stations that currently only provide one elevator, or where a fully ADA compliant elevator is not available.	The new elevators will ensure consistent and fully ADA compliant access to the underground Metro stations for people with mobility impairments and others needing the elevator for access to the stations.	Enhance	$24,000,000	49
4	ACCESSIBLE WAYSIDE LIFT REPLACEMENT (Program)	Replaces the four wayside mechanical lifts on Market Street and one wayside mechanical lift at San Jose and Geneva with wayside platforms. New wayside platforms will be fully ADA compliant. The four mechanical lifts on Market Street will be replaced as part of the Better Market Street project.	Replacement of wayside lifts with platforms will improve system access by ensuring that passengers using mobility aids can access the light rail system. Providing accessible boarding platforms will reduce boarding time and maintenance while and improving system reliability.	Maintain	$2,550,000	44
5	SUBWAY STATION WAYFINDING (Program)	Improve wayfinding for blind and low vision customers in complicated shared BART/Muni Metro stations. The initial effort will include the development and distribution of individual tactile station maps of the 8 Muni Metro stations to assist in trip planning and navigation. Additional strategies could include the installation of color contrasting, foot and cane detectable directional tile to indicate a safe path of travel through shared stations.	The project will improve system access for passengers with vision impairments.	Enhance	$2,500,000	33
Total					**$73,200,000**	

Bicycle Program Descriptions and Prioritization Scores

Number	Name	Description	Justification	Investment Type	Cost	Priority Score
1	BICYCLE NETWORK EXPANSION (Program)	Includes the planning, design and implementation of an expanded bicycle network. These facilities extend beyond the 2008 Bicycle Plan to benefit the entire system and is expected to provide additional infrastructure for cyclists, including cycle tracks, colored bike lanes, buffered bike lanes, and shared bike/bus lanes.	These improvements to the bicycle network will help to increase the safety of cyclists and decrease the level of traffic stress while encouraging a greater number of cyclists on the network.	Expand	$64,825,000	73
2	BICYCLE NETWORK LONG TERM IMPROVEMENTS (Program)	Includes the planning, design and construction of innovative bicycle facilities, including cycle tracks (on-street separated bikeways), colored bicycle lanes, bike boxes, and bicycle boulevards. The program enhances short-term bicycle projects and implements long-term projects. It acts as an upgrade to the 2008 Bicycle Plan network to benefit the entire system and provide additional space for cyclists.	These improvements could contribute towards a decrease in auto congestion and overcrowding on transit vehicles.	Enhance	$370,400,000	73
3	BICYCLE PLAN NETWORK PROJECTS (Program)	Includes the remaining short term projects from the Bicycle Plan, which collectively provide for construction of bicycle facilities. They feature bicycle lanes, sharrows, signal improvements and travel lane conversions from automobile use for enhanced bicycle network improvements and traffic calming efforts. These facility improvements serve the entire modal system by providing for the needs of cyclists. By making bicycle transportation a safer, more viable mode in San Francisco.	These facility improvements serve the entire modal system by providing for the needs of cyclists. By making bicycle transportation a safer, more viable mode in San Francisco. By making the bicycle a more convenient mode to use for short trips, this program could decrease automobile congestion and overcrowding on transit vehicles.	Expand	$23,000,000	73
4	LOCATION-SPECIFIC HOTSPOT IMPROVEMENTS (Program)	Program maintains expectations of comfort and safety for cyclists and decreases the level of traffic stress by addressing location-specific hotspots, or those areas with the greatest potential conflicts between cyclists and drivers. These treatments will largely be implemented in and around intersections. Specific treatments may include bike signals, bike boxes, left turn improvements and bike counters.	These improvements to the bicycle network will help to increase the safety of cyclists and decrease the level of traffic stress while encouraging a greater number of cyclists on the network.	Enhance	$13,500,000	67
5	BICYCLE SHARING (Program)	Makes bicycles available for public use via radio-frequency identification (RFID) smartcards available at self-service pay stations in central San Francisco (initially in the northeast quadrant).	The bicycle sharing facilities encourage bicycling as a viable transportation option, primarily for short trips, which contributes towards a reduction in automobile trips and transit overcrowding. Can help public transit users complete their trip, often called a “last mile” solution. reduce noise and air quality impacts through a reduction in the number of auto trips.	Expand	$54,000,000	66
6	BICYCLE NETWORK REHABILIATION (Program)	Rehabilitates bicycle network elements such as soft hit posts, green bicycle lanes, sharrows, bicycle signals, striping and signage, bicycle racks and corrals, and bicycle counters.	Rehabilitating the bicycle network encourages bicycling and maintains the network in a State-of-Good-Repair. These investments contribute to meeting the goals established in the SFMTA’s Bicycle Strategy.	Maintain	$33,825,000	58
7	SECURE BICYCLE PARKING (Program)	Includes the installation of 2-3 bicycle parking stations, which are self-service or attended facilities that have controlled access for secure storage of a bicycle; and the installation of 100 bicycle lockers per year. Secure bicycle lockers provide flexible, shared use, on-demand bicycle parking options.	Both of these facilities serve the entire system by providing for the needs of cyclists, making bicycle transportation a safer, more viable, attractive mode in San Francisco.	Expand	$10,800,000	37
8	SHORT TERM BICYCLE PARKING (Program)	Includes the installation of 1,200 bicycle racks per year (e.g., sidewalk racks, on-street racks); wheel stops; bollards; corrals and other measures to facilitate bicycle parking at various locations throughout San Francisco.	These facility improvements serve the entire system through the provision of safe, convenient bicycle parking so that cyclists can access desired land uses at the end of their trips.	Expand	$12,000,000	37
Total					**$582,350,000**	

Communications & Information Technology Program Descriptions and Prioritization Scores

Number	Name	Description	Justification	Investment Type	Cost	Priority Score
1	CAPITAL ASSETT MANAGEMENT System (Program)	Integrates asset management and inventory concepts with capital planning, investment, budgeting and project prioritization.	The program focuses on refining the existing asset inventory and condition of capital assets. It is intended to maintain quality services by supporting the timely replacement/rehabilitation of assets. This program could also reduce maintenance costs by helping keep the system in a state of good repair.	Enhance	$25,000,000	45
2	MTA DISASTER RECOVERY SITE	Planning and Implementation of a IT server site to provide operations in the event of a disaster. This would be approached in two phases, implement and test key systems, then expand the site to support all systems. HA (High Availability) is not covered by this site and already addressed with the agencies existing infrastructure.	The MTA currently has no disaster recovery site and in the event of a disaster than renders both of its primary data centers inoperable it would not be able to operate any of its IT systems in any capacity. A DR site is required to enable the operation of Key systems in the event of a disaster.	Enhance	$1,500,000	39
3	COMMUNICATIONS CONNECTIVITY & PASSENGER INFORMATION (Program)	Expands the utilization of unallocated capacity of the existing fiber-optic cables to establish high-speed connectivity within the Metro Subway. Includes two large (60") display monitors in the concourse areas.	High speed connectivity would allow for security concerns and safety anomalies to quickly be communicated to Central Control. In addition, monitors would provide information to passengers so that they can make informed decisions concerning which train to take to their destination.	Enhance	$25,200,000	35
4	Wi-Fi ACROSS ENTIRE AGENCY	This project will implement Wi-Fi across all of the agency facilities and offices. Currently Wi-Fi is only readily available in a managed manner at 1 South Van Ness and is not distributed across the other offices or facilities. Expanding Wi-Fi connectivity to all site will allow the agency to leverage mobile/portable computing and supports agency initiatives like EAM and VMI	Implementing a standard Wi-Fi solution will allow the agency to leverage Wi-Fi dependent technologies and improve communications. Utilization of Tablet and portable computer to improve efficiencies is dependent on a solid enterprise Wi-Fi network. As part of this implementation Fiber connectivity will be completed to all MTA site and redundant links will be implemented for Key Facilities.	Expand	$3,100,000	28
5	311 EXPANSION	Expands SFMTA usage of the 311 System to capture agency-wide customer complaints, including integrating customer complaints into Trapeze, parking control officer (PCO) complaints, etc. The project includes wireless, handheld devices, information technology infrastructure improvements (including hardware and software interfaces to communicate with legacy technology systems), automation of intake and distribution of customer service requests and/or complaints for all SFMTA divisions.	Enhanced efficiency in the intake and resolution of customer service requests will improve system quality as communication and request resolution improve. Reported incidents will help inform the strategic deployment of agency resources.	Expand	$2,900,000	27
6	ELECTRONIC DOCUMENT MANAGEMENT	Includes purchase and installation of an agency-wide electronic document storage, retrieval, scanning, indexing and search software and hardware system.	This project will enhance the agency's ability to capture and use safety and training documents, historical photographs, and as-built graphics of facilities.	Expand	$8,600,000	15

Number	Name	Description	Justification	Investment Type	Cost	Priority Score
7	ON BOARD CLIPPER READER UPGRADES	Replacement of the existing Clipper readers (approx. 3500 units) will need to occur in the next 2 years. Currently the readers are not able to integrate with Radio and only support Clipper. Replacing the existing readers with Units that integrate with Radio, support NFC (open payment), QR/Barcodes and are field proven will address future compatibility issues and current equipment performance issues.	The clipper system is due to be replaced by 2019, however the existing equipment was install in 2007 and has an operating life of 5 years. The current equipment needs to be replaced to address it's on going performance reliability issues. Replacing the equipment at this juncture will allow for integration to the new Radio system providing single sign on for operators and enable the agency to leverage newer technology as an adjunct to the Clipper system.	Enhance	$9,300,000	14
8	LEARNING MANAGEMENT SYSTEM	Purchase of a Learning Management System (LMS) and related information technology (IT) infrastructure, establishing a permanent repository for training, testing, and certification of employee records. Under this system, computer-based training, reference information, and training materials can be delivered to an individual's desktop, to a workstation (kiosk-type application), or as part of a classroom multimedia presentation. It features resource files for use within training presentations and programs (e.g., photos, video files, audio files, or reference documents) that are catalogued, retrieved, and distributed.	This project will facilitate the development of professional programs, as well as the timely dissemination of computer based training materials within the SFMTA resulting in a greater level of training and access to training materials across the agency	Expansion	$11,500,000	11
9	VoIP IMPLEMENTATION	Migrate the agency phone system from the legacy PBX system(s) that are currently utilized across the various facilities to a unified Lync Based VoIP solution. This will reduce the operating cost for telephony while adding features to the phone system that will integrate with Lync and Exchange.	Implementation of a VoIP solution will provide additional feature and communications options while reducing the operational costs of Telephony in the agency. The Capital investment is primarily for desktop phones that are SIP compatible.	Maintain	$1,000,000	11
Total					**$88,100,000**	

Facility Program Descriptions and Prioritization Scores

Number	Name	Description	Justification	Investment Type	Cost	Priority Score
1	REAL ESTATE VISION FOR THE 21ST CENTURY - FACILITY REHABILITATION (Program)	Provides for the rehabilitation of facilities across the city. Aging facilities will be repaired or rebuilt, with a focus on optimizing the spaces to accommodate fleet growth. Other improvements will be made to ensure that buildings are seismically retrofitted and provide a safe workspace for SFMTA employees.	The resulting improvements will provide safer and healthier working conditions and will ensure that the transportation system is more efficient. Efficient and properly designed facilities are key to maintaining the Muni Fleet in a state of good repair.	Maintain	$590,000,000	69
2	OPERATIONS, MAINTENANCE, AND ADMINISTRATION SHOP EQUIPMENT (Program)	Provides for ongoing acquisition and replacement of the equipment needed to support all aspects of SFMTA operations, maintenance and administrative functions.	Timely replacement and enhancement of the shop equipment increases SFMTA's ability to provide reliable service and reduce incidents stemming from faulty equipment. This project is critical to maintaining a state-of-good-repair of the systemwide shop equipment assets that support operations, maintenance, and administration.	Maintain	$360,000,000	69
3	SUBWAY STATION REHABILITATION (Program)	Provides for ongoing rehabilitation and improvement projects in the Metro subway stations. It includes rehabilitation of substructure, superstructure, Heating, Ventilating, and Air Conditioning (HVAC) systems, electrical systems, plumbing systems, as well as painting and platform edge detection tile replacement.	Well-maintained subway station facilities will reduce the risk of safety hazards due to deteriorating systems. Timely replacement of assets allows for consistent and efficient station operations, i.e., replaces old systems with energy-efficient ones.	Maintain	$645,000,000	67
4	CABLE CAR BARN FACILITY IMPROVEMENTS	Constructs office space on the first floor mezzanine level of the building for maintenance management and staff. Includes the construction of an emergency fire escape hatch from the welding shop. Also installs and replaces the fresh air and exhaust ventilation systems for the cable car machinery area.	Improvements will enhance maintenance efficiency and safety for the cable car system. It will indirectly result in safer, more reliable service and increases in cable car use. Improvements will also help maintain a healthy working environment for employees.	Enhance	$7,000,000	48
5	EMPLOYEE RESTROOMS IMPROVEMENTS (Program)	Includes major rehabilitation, preservation, and improvement of 110 existing restroom facilities at various locations, including Operations Central Control (OCC), subway stations, etc. and construction of new operator restrooms.	This project will improve and enhance employee facilities, potentially leading to healthier working environments.	Enhance	$10,000,000	30
6	ELECTRONIC L.E.D. SIGNAGE SYSTEM - EXPANSION TO NEXTMUNI (Program)	Includes purchase and installation of public information signage at the entrances of all subway stations to alert and inform Muni passengers of the status of Muni services, i.e., a modernization and expansion of the NextBus system.	This project will improve safety and reliability, and allow passengers to make informed transit access decisions.	Enhance	$2,100,000	28
7	RUBBER TIRE DIVISIONS WASH RACK REPLACEMENT	Provides new industry standard wash racks for all five Rubber Tire Transit Divisions. Wash racks will be able to handle standard and/or articulated motor coaches depending on the division in which they are installed.	This project will result in cleaner buses, with the potential of improving customer satisfaction. It will also improve the working environment by providing more effective and modernized equipment that reduces water resource consumption efficiently utilizes necessary cleaning chemicals.	Enhance	$12,000,000	27
8	TRANSIT OPERATIONS FACILITIES SOLAR PANELS	Installation of solar panels at the Woods, Potrero, Presidio and Flynn Transit Facilities. Each facility has an abundance of open, clear roof space where solar panels could be installed. The resulting electrical generation could be used to power each facility and excess energy could be returned to the power grid.	This project will improve energy efficiency and would result in cost savings. It would also support the agency's sustainability goals by reducing SFMTA's use of non-renewable resources.	Enhance	$20,000,000	19
9	CABLE CAR MUSEUM RENOVATION	Renovates and improves the Cable Car Museum, located at the Cable Car Barn at 1201 Mason St.	While this project will not provide operational benefits, it will help maintain a key tourist attraction, as well as an important source of agency revenue.	Maintain	$13,000,000	11
10	REAL ESTATE VISION FOR THE 21ST CENTURY - REAL ESTATE PROPERTY ACQUISITION (Program)	Allows for the selective leasing or acquisition of new property so as to better accommodate the real estate needs of the agency, particularly transit operations. This program allows the agency to be proactive in planning for its future needs.	A new facility would provide the flexibility to implement the RE Vision in a shorter timeline, increasing SFMTA vehicle facility capacities and maintenance capabilities sooner.	Expansion	$80,000,000	9
11	REAL ESTATE VISION FOR THE 21ST CENTURY - TRANSIT ORIENTED DEVELOPMENT (Program)	SFMTA owns many properties that are no longer necessary for the operation of the system and that are, in some cases, functionally obsolete. These sites include Presidio South, Potrero, and the Upper Yard. By selling or ground leasing the land to developers, revenue earned through the TODs can be used to finance the Real Estate Acquisition Program or the Facility Rehabilitation Program.	Fully utilizing existing SFMTA properties provides resources to operate and maintain the Muni fleet.	Enhance	$20,000,000	7
Total					**$1,759,100,000**	

Fixed Guideway Program Descriptions and Prioritization Scores

Number	Name	Description	Justification	Investment Type	Cost	Priority Score
1	AUTOMATIC TRAIN CONTROL SYSTEM (Program)	Provides for the phased rehabilitation and replacement of the Automatic Train Control System (ATCS). ATCS equipment is stored at Central Control, wayside control rooms, on the tracks, and in light rail vehicles and is composed of four distinct subsystems: Vehicle, Wayside, Vehicle Control Center, and System Management Center. On board vehicle equipment includes computers that control the propulsion and braking systems. Wayside equipment includes communications systems that controls signals and switches. The Vehicle Control Center is a system that calculates and controls safe movements. The System Management Center operates and manages the overall ATCS.	A proper functioning ATCS is vital to the day-to-day operations of the San Francisco transit system. Without the ATCS trains in the Muni Metro Tunnel are required to operate manually which increases travel time and reduces overall capacity of the Muni Metro Tunnel and the overall Muni System. Muni Metro travel time reliability is directly reliant on a functional ATCS.	Maintain	$200,000,000	83
2	RAIL REPLACEMENT (Program)	Provides for the phased design and replacement of 60 miles the trackway and related systems serving the light rail and cable car lines.	The primary focus of this program is to maintain the light rail and cable car trackways in a state of good repair by replacing components that have reached the end of their useful life.	Maintain	$660,000,000	80
3	OVERHEAD AND TRACTION POWER SYSTEM REHABILITATION (Program)	Provides for the rehabilitation, replacement, and improvement of all components of the existing Muni overhead and traction power infrastructure to support electrically-powered trolley coaches, light rail vehicles, and historic streetcars. This includes overhead wires, support poles, switches, substations, feeders, and related hardware.	The primary focus of this program is to maintain the overhead system in a state of good repair by replacing components that have reached the end of their useful life.	Maintain	$890,000,000	73
4	CABLE CAR INFRASTRUCTURE (Program)	Covers a wide variety of track work, cable machinery, traffic priority control, office, and maintenance equipment, totaling 19 projects through 2020 and 60 projects through 2029.	Replacement of track work, machinery, and communications equipment improve overall safety and increase the likelihood of attaining operational performance standards by providing updated and modern equipment which cable cars utilize.	Maintain	$154,000,000	70
5	SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA) SYSTEM UPGRADE (Program)	Replaces the existing Supervisory Control and Data Acquisition (SCADA) system and subway Digital Transmission System (DTS) with a new Supervisory Control and Data Acquisition (SCADA) system. The existing SCADA is a 30-year old, custom built system that is obsolete and no longer has manufacturer support. The SCADA system will support the operation of subway fans, damper, sump pumps, intrusion detection, fire alarm notification, electric power indication, etc. and will be integrated with Central Subway SCADA and the existing Muni Metro Turnaround/Muni Metro Extension (MMT/MMX) SCADA system.	Replacement of the SCADA system is critical to non-train control communications. Replacement of the SCADA system will contribute to a safe and comfortable transit user experience.	Maintain	$90,000,000	52
Total					**$1,994,000,000**	

Number	Name	Description	Justification	Investment Type	Cost	Priority Score
1	LIGHT RAIL VEHICLE REPLACEMENT (Program)	Includes replacement of the entire fleet of Breda light rail vehicles when they reach the end of their useful life, with 151 new light rail vehicles (LRVs) that meet the operational and capacity needs of the Metro light rail system.	This project will provide for the modernization of the existing light rail vehicle (LRV) fleet and will also allow for greater speed, reliability and comfort.	Maintain	$1,010,000,000	81
2	MOTOR COACH REPLACEMENT (Program)	Entails the replacement of 564 existing standard and articulated motor coaches (hybrid and diesel) with hybrid motor coaches through 2032. This program seeks to replace the existing aging fleet to a state of good repair, replacing old, severely overtaxed equipment with the latest and most advanced hybrid technology available. Many major components have reached their useful life and need to be overhauled, replaced, and rebuilt.	The new coaches will offer greater reliability and safety with enhanced transmission-based brake retarders, composite materials, slip resistant flooring, and better mirrors. As a result, this project will improve agency safety and security, as well as improved transit reliability, on-time efficiency, and customer satisfaction.	Maintain	$550,000,000	81
3	HISTORIC VEHICLE REHABILITATION (Program)	This program consists of the systematic rehabilitation of all currently in use historic streetcar vehicles (44 total), featuring an end-of-life rehabilitation (to new condition). It includes Americans with Disabilities Act (ADA) rehabilitation, a brake interlock system, a backup master controller, a major overhaul, and fare box procurement.	This program will maintain a high level of system reliability, safety, and productivity, providing quality service to patrons.	Maintain	$66,000,000	78
4	TROLLEY COACH REPLACEMENT (Program)	Provides for the systematic replacement of the 333 vehicles in the trolley coach fleet. This project replaces the trolley coach vehicles at the end of their 15-year useful life, maintaining the trolley coach fleet in a state-of-good-repair. During replacement the mix of vehicles sizes may be adjusted to align with the Transit Fleet Management Plan projections of ridership (greater 60' vehicles, fewer 40' vehicles).	Timely replacement of trolley coach vehicles reduces the number of incidents and breakdowns from vehicle deterioration and age, contributing to greater reliability and a cleaner and more comfortable experience for the customer and employee.	Maintain	$565,000,000	77
5	TRANSIT ONLY LANE ENFORCEMENT (TOLE) AND CLOSED CIRCUIT VIDEO	Equips all SFMTA transit vehicles with forward facing parking detection devices to document vehicles parked in transit only lanes and issue parking citations based on that video evidence. Also equips vehicles with on-board closed circuit video for safety and security purposes.	The TOLE cameras will reduce congestion on major corridors, thereby improving service reliability and transit system efficiency. This security enhancement would help deter illegal parking practices, including double parking in lanes . The closed circuit video cameras will improve safety by reviewing incidents and preparing for them in the future and improve on-board security.	Enhance	$75,000,000	75
6	PARATRANSIT FLEET REPLACEMENT (Program)	Provides for the purchase of approximately 40 large-sized vans, designed to carry one to two wheelchairs and 12 seated passengers, based on a replacement cycle of five years.	This project will replace the current fleet, providing for newer, modern vehicles and better access for the physically-challenged.	Maintain	$20,000,000	72
7	LIGHT RAIL VEHICLE MID-LIFE OVERHAULS (Program)	Includes the systematic rehabilitation and overhaul of all 151 light-rail vehicles every five years, including Heating Ventilating and Air Conditioning (HVAC), brakes, couplers, pantograph, propulsion, doors, car body, seats, and cab.	This rehabilitation will ensure a higher state of system reliability throughout the life of the vehicles and will reduce maintenance costs.	Maintain	$750,000,000	72
8	TROLLEY COACH MIDLIFE OVERHAULS (Program)	Implements systematic mid-life overhauls of all 333 vehicles in the trolley coach fleet. This program includes the rehabilitation and replacement of frames, inverter replacement, battery management, and minor overhaul of major components. This program of rebuilds and overhauls involve modernization of equipment to meet current standards (e.g., accessibility).	The primary focus of this program is to maintain the trolley coach sub-fleet in a state of good repair by overhauling vehicle components midway through the vehicles useful life.	Maintain	$110,000,000	70

Number	Name	Description	Justification	Investment Type	Cost	Priority Score
9	MOTOR COACH MIDLIFE OVERHAULS (Program)	Provides for the systematic mid-life overhaul of all 564 vehicles in the motor coach fleet. The program includes rehabilitation and replacement of engines; transmissions; differentials; suspension systems; wheelchair lifts; passenger and driver seats; glass; and body repair and paint.	The primary focus of this program is to maintain the motor coach fleet in a state of good repair by replacing components midway through the vehicles useful life. Mid-life rehabilitation of the motor coach fleet ensures that the vehicles operate in a safe and secure manner, reducing safety hazards and vandalism. In addition, this rehabilitation program will allow each vehicle to reach its full useful life before needing to be replaced. Timely rehabilitation of the motor coach fleet reduces the number of breakdowns and improves service reliability.	Maintain	$165,000,000	70
10	CABLE CAR VEHICLE REHABILITATION (Program)	Encompasses phased overhaul and reconstruction of the Cable Car fleet, with a total of 40 vehicles undergoing major or minor rehabilitation by FY 2032: A proposal for major rehabilitation, consisting of 17 Powell Cars and 11 California Cars; and another proposal for minor rehabilitation, consisting of 10 Powell Cars and 2 California Cars.	This program will maintain a high level of system reliability, safety, and productivity, providing quality service to patrons.	Maintain	$18,750,000	68
11	LIGHT RAIL VEHICLE EXPANSION (Program)	Provides for the purchase of 40 additional light rail vehicles to increase the level of service as identified in the Transit Fleet Management Plan. Vehicles necessary for providing Central Subway service as well as service to major developments (Parkmerced, Hunters Point/Candlestick Point) are included in these 40 vehicles.	This project will provide for increased service along existing and under construction light rail lines. Expansion of the Light Rail fleet with modern vehicles should allow for greater speed, reliability and comfort.	Expand	$260,000,000	60
12	MOTOR COACH EXPANSION (Program)	Expansion of the motor coach fleet, both in number of vehicles and vehicle capacity, to accommodate projected growth. Between 2013 and 2032, the motor coach fleet will expand from 460 to 581 buses (increase of 121 buses), as shown in the Transit Fleet Plan. These expansion vehicles include those needed to provide expanded service to planned major developments (Parkmerced, Treasure Island, Hunters Point/Candlestick Point Shipyard).	The expansion of the motor coach fleet is needed to meet projected ridership demand. In addition, new fleet procurements will help meet operational needs for larger capacity vehicles and help meet zero emissions targets.	Expand	$160,500,000	54
13	FAREBOXES-REPLACEMENT (Program)	Includes the following activities: replaces 1,250 fare boxes; procures new probing equipment; refurbishes vault equipment; procures 72 additional fare boxes to serve as a float when a batch of fare boxes is being refurbished; and purchases a data collection system at the yard and a new central computer for reporting and data storage.	This project will effectively improve system accountability as well as passenger boarding. In addition, it will lead to better system reliability and reductions in travel time.	Maintain	$159,000,000	44
14	NON-REVENUE VEHICLE REPLACEMENT (Program)	Consists of the purchase and replacement of non-revenue vehicles, such as specialized maintenance vehicles, as well as light and heavy duty trucks and sedans that are used throughout the agency. This project will replace existing non-revenue vehicles at the end of their useful life.	On-time replacement of non-revenue vehicles ensures that employees can efficiently access locations where there are service incidents and perform corrective measures.	Maintain	$185,000,000	32
15	AUTOMATIC PASSENGER COUNTING (APC) SYSTEM	Procures and installs on-board automatic passenger counting equipment on Muni's light rail revenue fleet, exclusive of historic rail and cable cars. The APC system counts on- and off-passenger loading and logs the data to an on-board computer. APC counters for the motor and trolley coach fleets are included in replacement and expansion procurements.	Automatic Passenger Counters (APCs) allow SFMTA to account for current ridership demand and plan for future shifts and growth in demand on the Muni system. In addition, the project will provide transit controllers with vehicle passenger information to make the decision to disperse additional vehicles on overloaded routes.	Expand	$10,000,000	28
Total					**$4,104,250,000**	

Number	Name	Description	Justification	Investment Type	Cost	Priority Score
1	PARKING FACILITY REHABILITATION	Includes major rehabilitation, preservation, and improvement of existing parking facilities to enhance parking infrastructure and improve parking management. Implements improvements to energy efficient lighting, mechanical system upgrades (e.g. elevators, HVAC, sump pumps), CCTV surveillance systems, and bike parking as well as compliance with ADA regulations and various Planning, Building and Fire Codes.	Projects involve restoration of 38 parking facilities that provide nearly 15,000 parking spaces, 90,000 sq. ft. of retail space and generate over $85M in annual gross revenues. The overall project includes energy efficient lighting, mechanical system upgrades (e.g. elevators, HVAC, sump pumps), CCTV surveillance systems, expanded bike parking as well as compliance with ADA regulations and various Planning, Building and Fire Codes. When completed, this project will extend the useful life of major revenue-generating assets, enhance safety of public facilities, as well as help provide better services for those using cleaner transportation alternatives such as bicycling, carpooling and carsharing. The project enhances system safety and supports Complete Street efforts by promoting alternate modes of transportation.	Maintain	$234,000,000	55
2	PARKING FACILITY STRUCTURAL AND SEISMIC UPGRADES	Most of SFMTA parking structure are at least 20 year old (oldest garage was built in 1941). Performing a structural analysis to assess the integrity of the SFMTA garages is the first and necessary step to ensure the viability of SFMTA parking assets. The second step is to implement structural and seismic upgrades, where needed.	Improving the seismic and structural integrity of existing parking structures increases the resiliency of the facilities in the event of a natural disaster	Maintain	$79,000,000	50
3	PARKING ACCESS REVENUE CONTROL SYSTEM	Replacement of the Parking Access and Revenue Control Systems (PARCS) software, hardware, ticket dispensers, gate arms, registers, ticket acceptors, ticket readers, and pay stations at 20 SFMTA off-street parking garages.	The PARCS equipment in 20 SFMTA off-street garages are antiquated and require regular maintenance. Due to the different hardware and software versions, staff cannot get a coherent report from the parking garages. Parking equipment replacement parts in some of the garages are no longer available.	Enhance	$38,000,000	38
4	REPLACE PARKING METERS CITYWIDE PROGRAM	Replaces and modernizes equipment for all 24,000 existing parking spaces and installs equipment for an additional 6,000 spaces, in coordination with SFpark pilot projects. Existing meters are outdated and subject to vandalism and mechanical problems.	Modernizing existing parking meters will improve reliability and increase driver convenience by accepting non-cash forms of payment. Modernized meter will also allow for parking to be priced for greatest occupancy.	Maintain	$101,000,000	36
5	ELECTRIC VEHICLE CHARGING INFRASTRUCTURE	To enable drivers to shift from gasoline to Electric Vehicles (EVs), San Francisco has begun providing public chargers at city-owned parking garages to extend the range EV drivers can travel away from their “home” chargers. The City is installing public chargers at 20 city-owned locations – primarily at parking garages that already have sufficient electrical service to support the EV chargers. In order to broaden the public infrastructure to all parts of the City, EV chargers will be installed at city-owned locations, such as parking garages.	Providing EV chargers at multiple locations throughout the city encourages the use of EVs, thus reducing greenhouse gas emissions, noise pollution, and other harmful pollution	Expand	$2,400,000	31
6	INSTALL VEHICLE DETECTION SENSORS	Installs vehicle detection sensors and related equipment in all existing metered parking spaces and additional parking spaces, in coordination with SFpark pilot projects.	This parking meter messaging system will help inform drivers of vacant parking, thereby reducing vehicle miles traveled (VMT), vehicle emissions, and noise.	Enhance	$13,500,000	29
Total					**$467,900,000**	

Pedestrian Program Descriptions and Prioritization Scores

Number	Name	Description	Justification	Investment Type	Cost	Priority Score
1	PEDESTRIAN STRATEGY CORRIDOR AND LOCALIZED TREATMENTS	Plans, designs and implements infrastructure elements identified in the San Francisco Pedestrian Strategy. Elements include major street design changes phased in over time via a pilot and evaluation process and localized improvements along identified corridors (44miles) and spot locations. Specific infrastructure implemented to improve safety for pedestrians under this program may include sidewalk widening, road diets, creating pedestrian oriented corridors, closing gaps in the pedestrian network, pedestrian bulbouts, rumble strips, pedestrian refuges, raised crosswalks, and other methods for physically altering the roadway. Improvements may be piloted prior to permanent implementation.	These projects should help meet Pedestrian Strategy goals of reducing pedestrian injuries, reducing neighborhood injury inequalities in pedestrian injuries, increasing walking trips and reducing driving for short trips. These infrastructure investments contribute to high quality walking environments and meeting the goals established in the Mayor's Pedestrian Safety Executive Directive and SFMTA's Pedestrian Strategy.	Enhance	$363,000,000	59
2	STRIPING AND SIGNAGE	Implements measures at intersections that help to enhance the visibility of pedestrians, and that makes walking more convenient. The scope of work includes opening crosswalks that are currently closed as well as upgrading standard crosswalk markings to more visible continental crosswalks.	Striping and signage have proven to reduce pedestrian injuries, increase walking trips and reduce driving for short trips. Improved striping and signage contribute to high quality walking environments and meeting the goals established in the Mayor's Pedestrian Safety Executive Directive and SFMTA's Pedestrian Strategy.	Enhance	$8,815,000	49
Total					**$371,815,000**	

Safety Program Descriptions and Prioritization Scores

Number	Name	Description	Justification	Investment Type	Cost	Priority Score
1	RAIL TRAINING SIMULATOR	Calls for the purchase and installation of one full-scale rail training simulator and virtual learning environment. The project also includes the purchase of Audio Visual and multimedia setup for five classrooms. This project will modernize SFMTA's existing training system with state-of-the-art rail training simulators and a virtual learning environment. Potential sites for the simulator include Muni Metro East and 2650 Bayshore.	Personnel trained would use what they have learned to improve the comfort and safety of the passengers that they carry. Personnel would have a better understanding of the rail vehicle and the rail system and would be better prepared to pass required operational exams.	Enhance	$2,000,000	64
2	BUS OPERATOR TRAINING SIMULATORS	Includes purchase and installation of two 360-degree, computer-based graphic training stations. These simulators will be used to train transit operators to provide control over difficult weather conditions, equipment malfunctions, traffic behaviors and other real-world situations. Potential locations for the simulators include Muni Metro East or 2650 Bayshore	This project will provide for greater safety training, for the purposes of being better prepared in times of emergency and under inclement weather conditions. Operators will have a better understanding of the vehicles they operate.	Enhance	$1,000,000	56
3	FACILITY SAFETY IMPROVEMENTS	Features a series of facility safety improvement projects at all SFMTA facilities, as appropriate. Projects include: Eye Wash Stations, Pigeon Abatement, Pit Drain Sump Systems, Pit Safety Nets, Motive Power Emergency Lights, Potrero Storeroom Isolative Wall, and Presidio Power Shutoff Switches. Also adding Fall Protection upgrades over the next 20 years.	These projects improve the safety of the work environment. Investments in safety infrastructure also assist in promoting a culture of safety.	Enhance	$4,350,000	48
4	SUBWAY FIRE ALARM & DETECTION	This project will upgrade the current fire alarm and detection system at shared Muni Metro/BART stations. The work involves voluntarily upgrading the facilities to the fire alarm and detection requirements of San Francisco Code (2010 edition) and National Fire Protection Association (NFPA) 72 Alarm Code (2010 edition) which is currently adopted by San Francisco Fire Department. The scope of work is to replace and install fire alarm control panel (FACP), emergency voice system, audible alarm notification appliances, strobes, alarm annunciator, power supply to the FACP and emergency voice/alarm communication system. This project would be initiated and led by BART.	This system will be monitored by an Underwriters Laboratories (UL) Listed Monitoring Station and will also interface with the Central Control System and the San Francisco Fire Department (SFFD) system. This project will result in a properly functioning fire detection system, quicker detection of minor incidents, elimination of false alarms, and a universal design for the fire alarm and detection equipment.	Enhance	$25,000,000	48
5	AUTOMATED PHOTO ENFORCEMENT SYSTEM REHABILITATION	Provides for the upgrade of existing photo enforcement equipment at 43 approaches from wet film to digital film systems. Also provides for purchase and installation of Automated Photo Enforcement systems at 10 new locations throughout the City.	Automated Photo Enforcement systems improve intersection safety, reducing the number of vehicle crashes from red light running. Automated photo enforcement systems can improve the safety of the transportation system and provide greater comfort to both bicyclists and pedestrians.	Enhance	$7,350,000	46
6	BICYCLE SAFETY EDUCATION (Program)	Provides educational courses on bicycle safety for both bicyclists and motorists who interact with bicyclists as part of their job (taxi, truck, muni drivers, etc.). Courses for bicyclists are taught for all skill levels. Topics covered include proper handling of a bicycle, rules of the road, hazards for bicyclists, and legal responsibilities.	Providing proper training and education allows for new cyclists to feel more comfortable and experienced cyclists to refresh their knowledge or get up to date on the most recent laws. Educating non-cyclists may result in a greater understanding of the rights and responsibilities of both cyclists and non-cyclists.	Enhance	$12,000,000	40
Total					**$51,700,000**	

Security Program Descriptions and Prioritization Scores

Number	Name	Description	Justification	Investment Type	Cost	Priority Score
1	TECHNOLOGY IN TRANSPORTATION EMERGENCY MANAGEMENT	Implementation of technology projects from industry best practices to enhance rail system security and employee/customer protection during normal operations as well as to augment response capabilities for all-hazard disasters on the rail system. Systems include PROTECT chemical and contaminant detection and modeling system, robotic and drone detection equipment, digital message boards, redundant communication systems, and additional security cameras	These projects enhance the transportation operations and emergency management capabilities of SFMTA.	Enhance	$20,475,000	63
2	INCIDENT MANAGEMENT PLANNING AND RESPONSE	Implementation of facilities improvements at the Department Operation Center, satellite communications equipment, and a dedicated incident response vehicle. Projects are driven by after-action reports from incident response exercises.	These projects provide the proper equipment and supplies for the Emergency operations Center, which greatly enhances SFMTA incident planning and response capabilities. Further, an audit finding will result if the SFMTA does not review and implement the recommendations in the exercise after-action reports and improvement plans.	Enhance	$3,195,000	60
3	SURVEILLANCE, ACCESS CONTROL, AND SECURITY SYSTEM ENHANCEMENTS	Implementation of recommendations in Threats and Vulnerability Assessment (TVA) Studies. Encompasses a set of security enhancement programs, centered on surveillance, access control, employee preparedness, and cyber security systems.	The implementation of TVA recommendations is mandated by the Transportation Security Administration (TSA) and California Public Utilities Commission (CPUC). Failure to comply will result in audit findings.	Enhance	$19,087,500	59
4	ALL-HAZARD EMERGENCY MITIGATION, PREPAREDNESS, & RESPONSE	Implementation of high-priority emergency mitigation and preparedness projects to protect critical SFMTA facilities, assets and infrastructure. Projects include facility improvements/renovations, equipment procurement, and/or contractual services to address natural or manmade disaster needs of the SFMTA, with an emphasis on Transit Security Rail projects.	All-hazard emergency mitigation and preparedness projects would improve safety and security for employees and customers and reduce the costs and consequences of disasters.	Enhance	$13,777,500	55
Total					**$56,535,000**	

Taxi Program Descriptions and Prioritization Scores

Number	Name	Description	Justification	Investment Type	Cost	Priority Score
1	TOPLIGHT IMPROVEMENT	Provide or incentivize new toplights that will provide taxi vehicles with -Higher visibility -Emergency/panic lights on exterior -Advertising space that does not interfere with the availability indicator -Unique SF brand Identity These toplights will not be controlled by the meter and will be operated manually.	Toplights will clearly communicate taxi availability, increase driver and passenger safety, and emulate the unique look and feel of San Francisco.	Enhance	$1,350,000	64
2	CAB POOLING PILOT	Taxis would operate along a fixed route to augment existing overburdened transit service, or congested corridors. Taxis would be provided a Scrolling LED light to indicate the Cab-Pooling service. Drivers will then utilize a standard rate and drive along established set pickup locations. The diver will then pick-up as many riders along the route and drop off riders at any point along the route, allowing a faster, more flexible transportation alternative if you require a seat, storage, or are in a rush.	Provides for supplementary service along corridors with transit capacity or congestion constraints for persons with personal belongings that require space on overcrowded vehicles or when shared ride services are preferred over transit.	Enhance	$600,000	39
3	INCREASE TAXI STANDS	In an effort to increase service to the outer city, 15 additional taxi stands will be established around major hail hubs to better manager and direct taxi flow and utilization.	Taxi stands establish locations so that taxis can be easier found throughout the city and aids in movement throughout the city for individuals or groups who chose, or require, taxis as their travel mode.	Expand	$350,000	28
4	BICYCLE RACKS FOR TAXIS	This will start as a pilot program, providing bicycle racks to willing drivers. The program will then expand to ensure that every taxi vehicle will have bicycle racks	This allows for taxis to better serve multi-modal connections, allowing those who own or rent bicycles a higher connectivity to the rest of San Francisco.	Enhance	$575,000	10
Total					**$2,875,000**	

Traffic Calming Program Descriptions and Prioritization Scores

Number	Name	Description	Justification	Investment Type	Cost	Priority Score
1	ARTERIAL AND COMMERCIAL STREETS	Program to calm traffic along 7 high-injury arterial or busy commercial corridors. Examples include implementing road diets, narrowing travel lanes, and installing landscaping. Public spaces can also be created or enhanced by traffic calming projects.	Traffic calming projects improve safety by reducing speeding along arterial and commercial streets. These projects also enhance the comfort of people walking and bicycling.	Enhance	$140,000,000	50
2	LOCAL STREETS	Program to install traffic calming devices such as speed humps, pedestrian bulb-outs, traffic circles, median islands at various locations in the city. Some of the more intensive traffic calming projects may include features such as chicanes, traffic diverters, signalized pedestrian crosswalks and street closures. Program is comprised of Application-Based Residential Traffic Calming, and Proactive Residential Area Improvement sub-programs. Public spaces can also be created or enhanced by traffic calming projects.	Traffic calming projects improve safety by reducing speeding in neighborhoods. These projects also enhance the comfort of people walking and bicycling.	Enhance	$54,300,000	24
3	SCHOOL STREETS	Provides for installation of bulbouts and various pedestrian safety improvements in over 200 public and private school areas. Two schools will be identified per a year. These projects will improve pedestrian safety, and promote walking for all school aged children in San Francisco.	These projects will improve pedestrian safety, and promote walking for all school aged children in San Francisco.	Enhance	$150,000,000	24
Total					**$344,300,000**	

Traffic Signal Program Descriptions and Prioritization Scores

Number	Name	Description	Justification	Investment Type	Cost	Priority Score
1	SIGNAL AND SIGN UPGRADES (Program)	Encompass upgrades of existing traffic control devices, including modifications to existing signals that lack a pedestrian feature, mast arms or related amenities. The project also includes the upgrade or replacement of signal equipment that is at the end of its useful life (50 years). Funded sign work in this category includes the graffiti program, where existing signs are replaced with signs that have higher reflectivity, and a coating that eases graffiti removal.	This program will improve safety, reducing the number of injuries through improved traffic control (e.g., where pedestrian countdown signals and signal visibility improvements are provided as part of a signal modification effort).	Maintain	$310,000,000	55
2	NEW SIGNALS & SIGNS (Program)	Provides for installation of new traffic signals, signs, pavement markings and related traffic control hardware, with an emphasis on new locations. This program anticipates installing five new signals, and five new signal beacons per year and 1,250 new signs over 20 years.	This project reduces vehicle delays, travel time and injuries by improved traffic control, often where STOP signs are inappropriate, i.e., due to traffic volumes, intersection configuration, and other such factors.	Enhance	$47,500,000	49
3	SFGO (Program)	This citywide intelligent transportation management system gathers and analyzes real-time information on current transit and auto traffic flow and congestion; responds to changes in roadway conditions; provides transit priority and emergency vehicle preemption; disseminates real-time traveler and parking information to the public; facilitates the management of special events; and enhances day-to-day parking and traffic operations. It will significantly improve obsolete and deteriorating traffic signal communications facilities, and will implement a number of Intelligent Transportation System (ITS) technologies.	The SFgo Program will replace obsolete and deteriorating traffic signal communications facilities and provide real-time information on current transit and auto traffic to improve transit flow and reliability.	Enhance	$106,080,000	47
Total					**$463,580,000**	

Transit Optimization Program Descriptions and Prioritizations

Number	Name	Description	Justification	Investment Type	Cost	Priority Score
1	19TH AVENUE GRADE SEPARATION & WESTSIDE M-LINE REALIGNMENT	Improvements on M-Ocean View from Sloat Boulevard to Randolph Street to reduce traffic and pedestrian conflicts and improve service quality. Includes a grade-separated crossing under 19th Avenue to Westside alignment near Stonestown. M-line would then continue as partial or full subway along San Francisco State University and into Parkmerced, with grade-separated crossing of 19th or J. Serra Boulevard to Randolph Street. Includes station, streetscape and pedestrian safety enhancements. Realignment within Parkmerced and Parkmerced transit improvements are discussed independently.	Westside alignment and grade separation provides for improved safety and security, reduced travel time, and increased reliability.	Enhance	$400,000,000	76
2	TRANSIT EFFECTIVENESS PROJECT (Program)	Provides for implementation of the Transit Effectiveness Project (TEP). The TEP includes travel time reduction projects, service improvements, transfer point and terminal investments, and overhead wire changes. The TEP will be delivered in two phases. The first phase includes improvements to N Judah, 5 Fulton, 6 Parnassus, 8x Bayshore, 9 San Bruno, 10 Townsend, 28 19th Avenue, 30 Stockton, and 71 Haight Noriega. The second phase includes improvements to J Church, K Ingleside, L Taraval, M Ocean View, 1 California, 14 Mission, and 22 Fillmore.	The Transit Effectiveness Project decreases travel time and increases reliability along San Francisco's most crowded transit lines. These improvements are needed to meet projected growth in San Francisco population and transit ridership.	Enhance	$298,000,000	70
3	GEARY LIGHT RAIL TRANSIT	Constructs a surface-subway, light rail transit (LRT) line to replace the 38 Geary bus lines. Geary is in the Four Corridors plan and is the next priority for major investment after the Central Subway. This is a long-term proposal with Geary Bus Rapid Transit Service providing near-term improvements until funding for the LRT can be identified.	This project will provide a higher capacity service along the corridor, providing passengers with improved speed, reliability and comfort.	Expand	$1,400,000,000	70
4	GEARY BUS RAPID TRANSIT	Designs and implements a rail-ready BRT project on Geary Blvd., from the Transbay Terminal to 33rd Ave. The project includes planning, environmental, design and construction. Project elements may include dedicated lanes, better shelters, and passenger information systems.	This project would increase the service reliability, person capacity, passenger comfort and attractiveness and reduce travel time along the corridor.	Expand	$224,000,000	68
5	CHINATOWN/NORTH BEACH LIGHT RAIL TRANSIT EXTENSION	Provides for the study and extension of the T-Third rail line approximately 1 mile north, from the planned Central Subway terminal at Stockton/Clay through North Beach and into Fisherman's Wharf. This project will provide a higher capacity service along the corridor, introducing improved speed, reliability and comfort.	Extension would connect Fisherman's Wharf and North Beach, a regional trip generator and one of the densest neighborhoods in San Francisco, with efficient and reliable regional transit service.	Expand	$1,100,000,000	64
6	RAIL NETWORK BOTTLENECK IMPROVEMENTS (Program)	Improve overall transit network performance by addressing key bottlenecks in the rail network, such as West Portal, Church and Duboce, Embarcadero, and 4th & King. Additional improvements would include Muni Metro tunnel communications and signal systems, platform size, and storage facility access.	Improvements at these key bottlenecks would increase overall capacity of the Muni rail system, improve reliability, and reduce travel time.	Enhance	$400,000,000	64
7	BALBOA PARK STATION INTERMODAL IMPROVEMENTS	Provides for improvements that provide for better intermodal connections at Balboa Park Station. The Pedestrian/Bicycle Connection Project Study was completed and staff is currently completing a conceptual engineering study of station area improvement projects identified, as identified in the San Francisco Planning Department's Balboa Park Station Area Plan. The program includes feasibility analysis and cost estimates. Included in this program are the Geneva Transit Plaza, J/K/M boarding areas, kiss & ride, pedestrian crossing signals, and curb bulbs projects.	This project would implement priority projects that improve passenger information and amenities, accessibility, and safety.	Enhance	$25,500,000	58

Number	Name	Description	Justification	Investment Type	Cost	Priority Score
8	16TH STREET BUS RAPID TRANSIT	Extends the 22-Fillmore on 16th Street, connecting Mission Bay with regional transit at the 16th-Mission BART station as well as neighborhoods along the 22-Fillmore route. Project includes transit-only lanes, pedestrian, and bicycle enhancements. This project requires an at-grade crossing of the Caltrain tracks on 16th Street. Grade separating the Caltrain crossing will be studied under this project and identified as a separate project in the future.	This project is anticipated to reduce travel times and will provide better access to transit from Mission Bay, increased reliability, and greater passenger ridership on the 22-Fillmore and connecting transit services.	Expand	$75,000,000	57
9	BETTER MARKET STREET	Includes planning, conceptual engineering, environmental review, public outreach and construction of the SFMTA portion of the Better Market Street Project. Concepts will be developed and evaluated for urban design of sidewalks and boarding islands, transit facilities and operations, pedestrian facilities (e.g., crosswalks), signal timing, and bicycle facilities (e.g., cycle tracks, bike lanes, parking). The study area is bounded by blocks just north of Market St., Folsom St., Octavia Blvd. and The Embarcadero.	This project will improve the quality of the public realm and optimize sustainable mobility modes (transit, walking and cycling), so that they are pleasant, reliable, efficient and comfortable for all users.	Enhance	$325,000,000	56
10	TRANSIT SPOT RELIABILITY IMPROVEMENTS (Program)	These improvements may include small signal upgrades or modifying signal phases at an intersection, adding bus or pedestrian bulbs to coordinate with a paving project, or street design changes to reduce delays for transit at busy intersections. The proposed program would increase transit ridership and improve the path of travel to transit stops and stations. It would also minimize delays encountered by Muni transit vehicles associated with customer boarding and alighting, the time required to pull into and out of bus zones, and the delays associated with traffic signals.	The improvements result in greater transit travel time reliability and on-time performance. Improved reliability and on-time performance should also result in decreased operation's needs.	Enhance	$10,000,000	55
11	HARNEY/GENEVA AVENUE BUS RAPID TRANSIT	Develops Bus Rapid Transit along the Geneva Corridor. The project includes BRT facility development along Geneva and Harney Way, supporting the Candlestick Point/Hunters Point Shipyard project and linking development to Caltrain, BART, and the T-Third line. Along the route, vehicle conflicts will be minimized through traffic control.	This project will reduce travel time and improve reliability along the corridor that links regional transit services, Priority Development Areas, and the Candlestick Point/Hunters Point Shipyard Development.	Expand	$315,000,000	54
12	GENEVA AVENUE LIGHT RAIL TRANSIT EXTENSION	Entails extending light rail track 2.7 miles along the Geneva Avenue from the Green Rail yard to Bayshore Boulevard and then to the existing T-Third terminus at Sunnydale Station. Operations would occur at-grade with station locations to be determined.	This project would provide for the operational flexibility needed to meet long-term rail service needs.	Expand	$450,000,000	50
13	PARKMERCED DEVELOPMENT M-LINE REALIGNMENT	The approved Parkmerced development includes the realignment of M-Ocean View light rail tracks and three new light rail platforms to serve Parkmerced and SFSU. This includes crossover tracks, tail track, signals, pedestrian safety enhancements, transit shelters, and passenger amenities. A bus transit plaza, among other transportation improvements will be constructed as part of the Parkmerced development. The 19th Avenue Grade Separation and Westside M-Line Realignment is discussed independently.	These enhancements will provide improved transit operations for lines serving the Parkmereced development and enable SFMTA to meet projected ridership demand.	Enhance	$70,000,000	49

Number	Name	Description	Justification	Investment Type	Cost	Priority Score
14	WATERFRONT TRANSIT IMPROVEMENTS (Program)	The Waterfront Transportation Assessment is identifying transportation improvements needed to accommodate planned growth in the area between Fort Mason and Islais Creek Channel. Specific improvements will be identified in Phase 2 of the Assessment. Improvements will aim at increasing capacity, passenger safety and convenience, and operational efficiencies, such as a 20th Street Transit Hub, a 58-24th Street transit terminal on Pier 70, and Muni Metro Extension (MMX) signal and track improvements.	Transit infrastructure needs to be substantially enhanced to accommodate planned growth and address current deficiencies. In addition, visitor travel may increase substantially with the recent opening of the Exploratorium, and with the proposed Warriors Arena on Piers 30-32 and retail development at Mission Rock (Seawall Lot 337) and Pier 70.	Enhance	$20,000,000	48
15	CANDLESTICK POINT/HUNTERS POINT SHIPYARD DEVELOPMENT (Program)	The Hunters Point/Candlestick Point Shipyard development includes the extension of route 24 and overhead wire, Hunters Point Transit Center, Transit Preferential Streets treatment on Palou Avenue, among other transportation improvements as part of the Hunters Point/Candlestick Point Shipyard development. The Harney Way/Geneva Avenue BRT project is discussed independently. (EIR mitigation measures for this project include transit lanes on Evans, Gilman, Paul and 3rd streets if delays to Muni service reach specified levels. These are not included in the cost estimate.)	These enhancements will provide improved transit operations for lines serving the Hunters Point/Candlestick Point Shipyard development and enable SFMTA to meet projected ridership demand.	Enhance	$108,000,000	44
16	TREASURE ISLAND INTERMODAL STATION	The Intermodal Transit Hub will provide a central location for multiple transit services, ticket sales, bicycle and pedestrian information, and tourist information. The SFMTA 108-Treasure Island line, along with other transportation services such as East Bay service, shuttle service stops, bicycle parking, car-sharing pods, and administration / office accommodation for the Island's Travel Coordinator will be located at the Intermodal Transit Hub.	The Intermodal Transit Hub is a key component of the Transportation Implementation Plan of the Treasure Island Development Project. Regional transit services to Treasure Island will be centralized at the Intermodal Transit Hub providing 90% of residents transit service within a 15 minute walk.	Expand	$25,000,000	43
17	AUTOMATIC FARE COLLECTION – PHASE 2 (Program)	Installs Ticket Vending Machines (TVMs) and off-board fare collection mechanisms along Rapid Network routes throughout the Muni System.	Providing off-board fare collection mechanisms along Muni's Rapid Network will increase reliability for up 1/2 of Muni's riders. TVMs also provide for clear communication of SFMTA fare structure and policies.	Enhance	$32,000,000	41
18	E-LINE NORTHERN TERMINAL AND FORT MASON EXTENSION	Consists of two separate projects. On project creates a northern terminal that consists of an independent E-Line track loop & terminal that allows for operational independence of the F-Line, including layovers, from E-Line service. The second project extends the current F-Line terminal west from Fisherman's Wharf to Fort Mason through an abandoned railroad tunnel underneath Fort Mason. The E-Line would likely operate along this extension.	E-Line service is a component of the planned TEP service improvements and will serve the projected growth in population along the waterfront area. A northern terminal is needed to provide the operational flexibility required for overlapping E-Line and F-Line services. A Fort Mason terminal provides access to Fort Mason and areas to the west, which have limited transit access options.	Expand	$61,500,000	35
19	THIRD STREET SOUTHERN INTERMODAL TERMINAL	Extends the T-Line to the Bayshore Caltrain Station. Combined with intermodal station area improvements this will improve transit connectivity with the existing Caltrain service and with the future Geneva BRT service.	Provides for increased transit travel options and greater connectivity for residents of southeast San Francisco can Caltrain passengers.	Expand	$50,320,000	26
Total					**$5,389,320,000**	