SFMTA 20-Year Capital Plan

SFMTA
Municipal Transportation Agency

Adopted October 15, 2013

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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.

SFMTA Vision

San Francisco: great city, excellent transportation choices.

SFMTA Mission Statement:

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

ACKOWNLEDGEMENTS

Mayor Edwin M. Lee

San Francisco Municipal Transportation Agency

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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.

Rail
- 151 light rail vehicles
- 35 historic streetcars
- 71.5 mi. of light rail tracks
- 40 cable cars
- 8.8 mi. of cable car tracks

Bus & Trolley
- 505 hybrid/diesel buses
- 311 trolley buses
- 25 mi. of overhead wire systems
- 14.8 miles of priority lanes

Facilities
- 19 operations, maintenance and administrative facilities in San Francisco

Traffic
- 281,700 street signs
- 1,193 signalized intersections
- 1,088 mi. of streets
- 900 miles of pavement markings

Bicycle
- 215 mi. of bicycle paths, lanes and routes
- 3,060 bicycle racks (on sidewalks)
- 202 racks in on-street corrals
- 35 bikesharing stations with 350 bikes

Parking
- 40 off-street parking garages
- 28,862 parking meters
- 400,000 public parking spaces citywide

Figure 1: SFMTA Asset Summary

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.

Figure 2: Taxis at San Francisco International Airport

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.

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.

Figure 3: Rail Replacement at Church and Duboce streets

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.

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.

Figure 4: Maintenance of a Light Rail Vehicle

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.

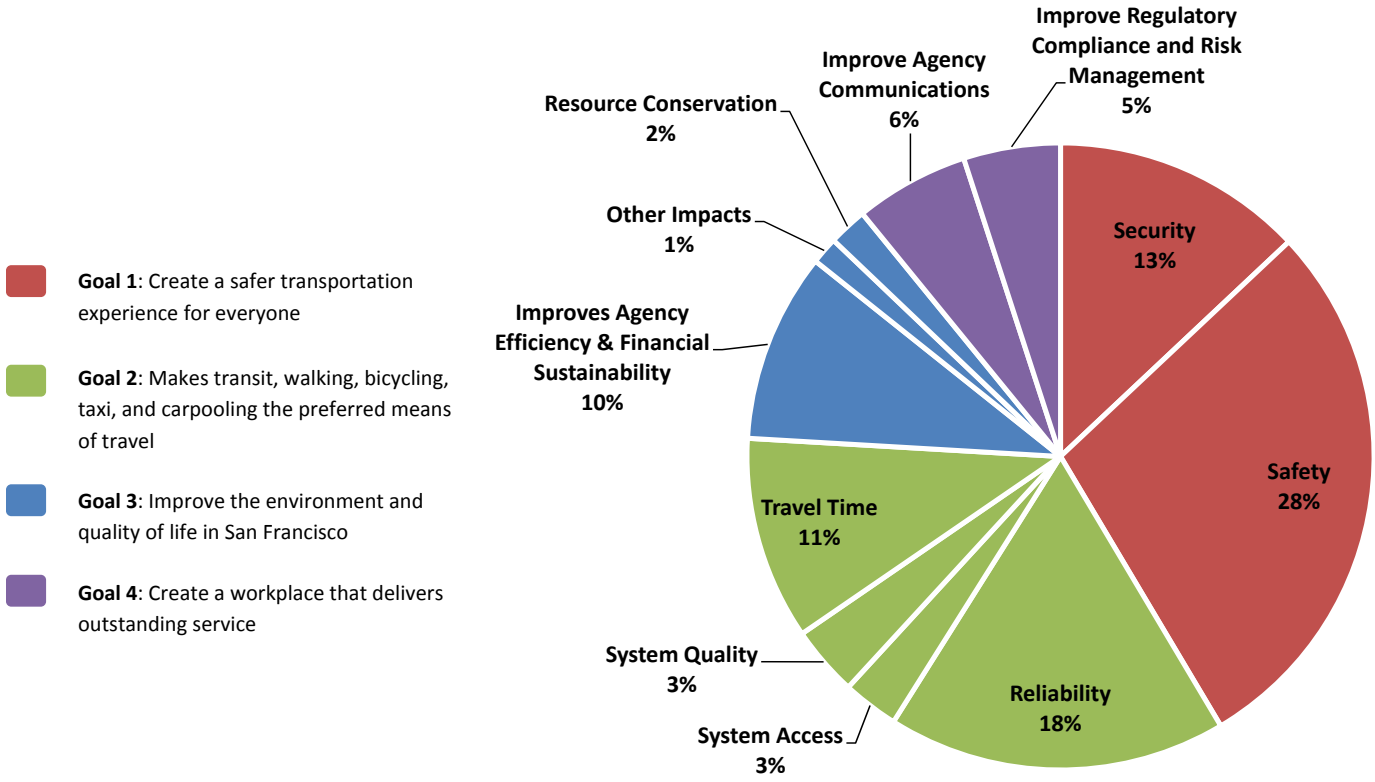

Figure 5: Capital Prioritization Criteria and Weights

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.

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.

Figure 8: SFMTA Transit Fleet Management Plan

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.

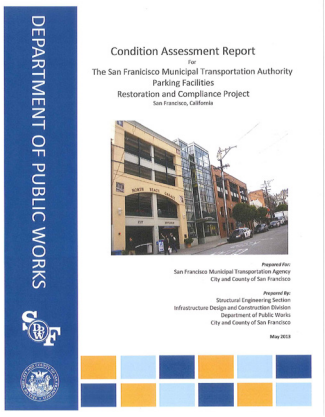

Figure 9: SFMTA Parking Facilties Assessment

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.

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

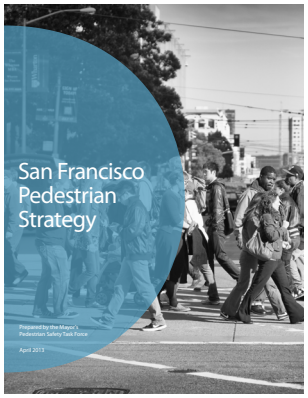

Figure 10: San Francisco Pedestrian Strategy

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 $16 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
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.

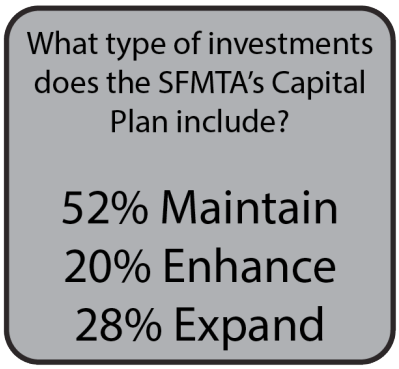

Figure 12: Capital Needs by Investment Type

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-

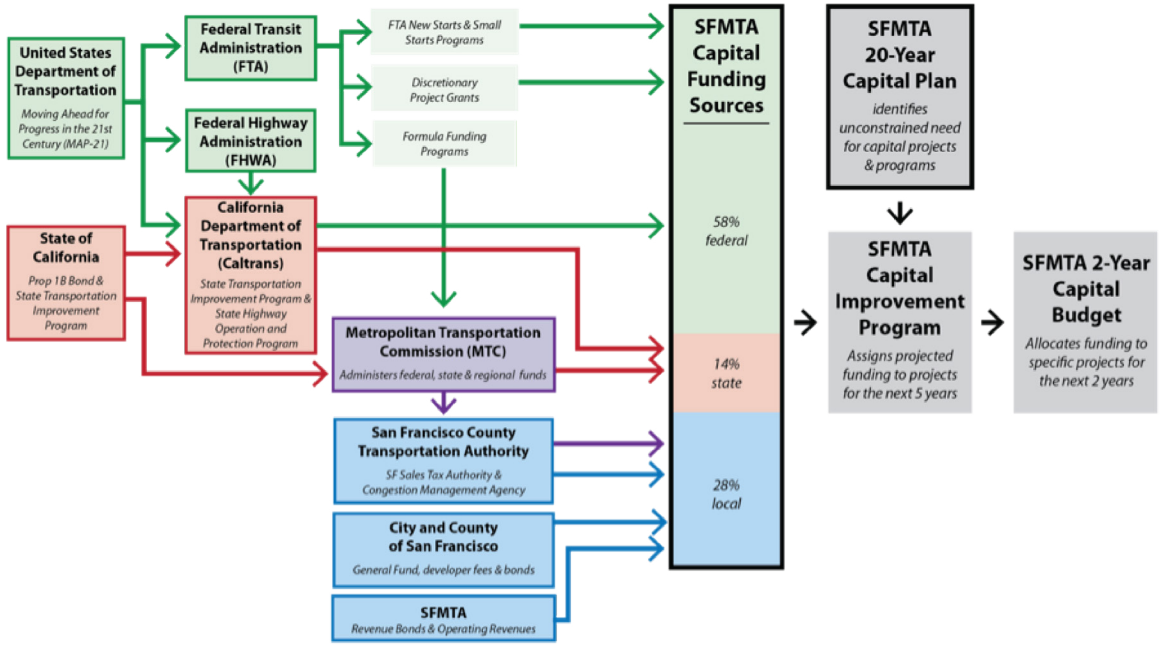

Figure 13: SFMTA Capital Project Funding Streams

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 Captial 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.

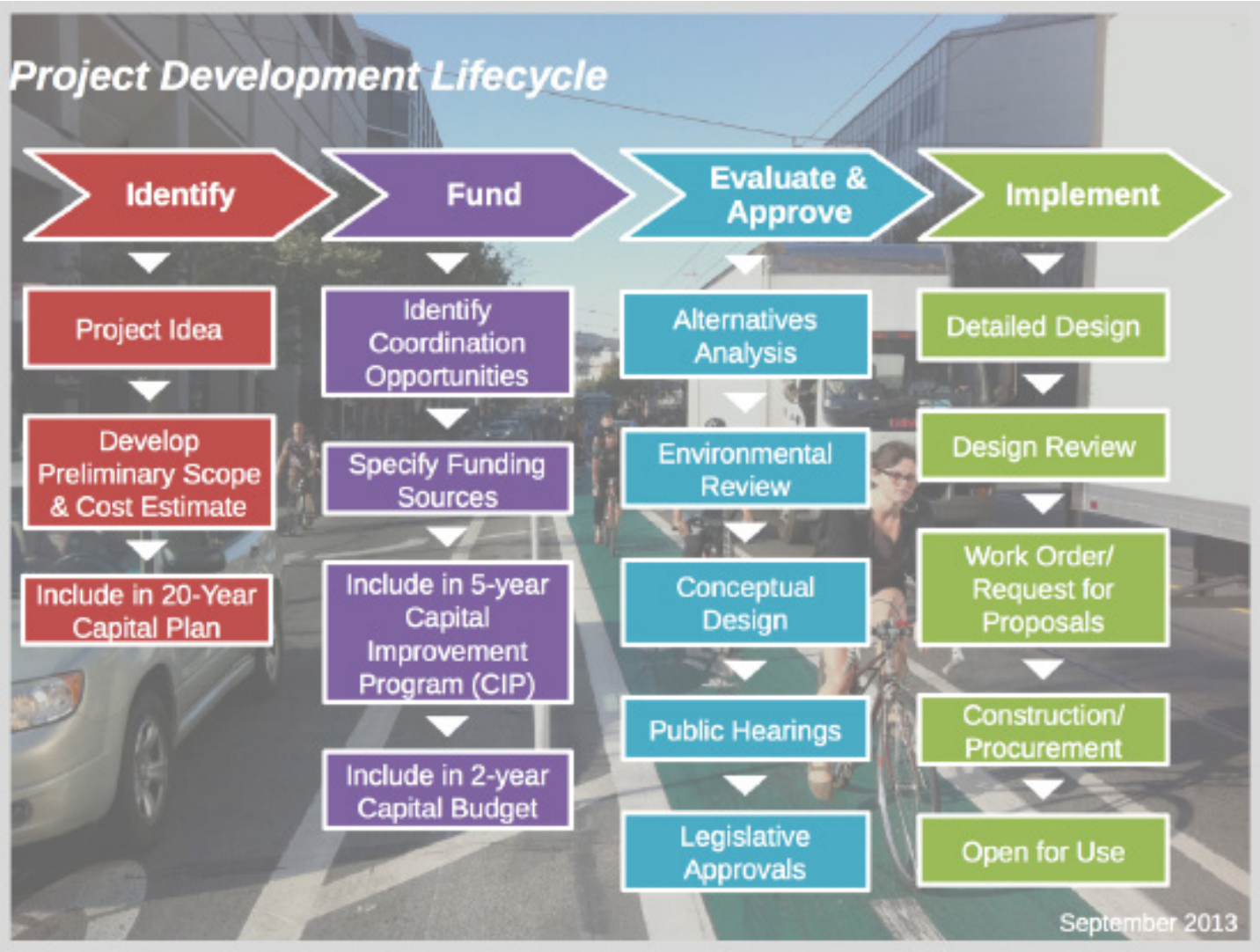

Figure 14: SFMTA Project Development Lifecycle

SFMTA | Municipal Transportation Agency

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SFMTA Capital Plan 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.

Draft Capital Plan Project Summaries

Capital Program: ***Accessible Services***
Total Program Cost (000s): ***$73,200***

SFMTA Municipal Transportation Agency

No.	Project Name	Project Description	Project Justification
1	ESCALATOR & ELEVATOR REHABILITATION (Program) Investment Type: Maintain Cost ($ thousands): $30,400 Priority Score: 52	Rehabilitation of street and platform elevators at Muni-only transit stations. Project includes 12 elevators that will be upgraded with new cabs, glass-paneled doors, door operators, hydraulics, controllers and cameras. Existing escalators in transit stations will be rehabilitated or replaced to conform with current building codes and incorporate modern safety features. Project includes a total of 23 more escalators (five outdoor escalators have already been rehabilitated). Addition of Americans with Dissabilities Act (ADA) compliant elevators are included in the Muni Metro Elevator Augmentation Program	The project will improve the reliability of station elevators and escalators and ensure consistent and safe access to stations for persons with disabilities.
2	ACCESSIBLE LIGHT RAIL STOPS (Program) Investment Type: Enhance Cost ($ thousands): $13,750 Priority Score: 51	The project will identify locations for and construct accessible light rail stops beyond those required by the Federal Transit Authority (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 Transit Effectiveness Project (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.

Draft Capital Plan Project Summaries

Capital Program: ***Accessible Services***
Total Program Cost (000s): ***$73,200***

SFMTA Municipal Transportation Agency

No.	Project Name	Project Description	Project Justification
3	MUNI METRO ELEVATOR AUGMENTATION (Program) Investment Type: Enhance Cost ($ thousands): $24,000 Priority Score: 49	Install new ADA compliant street and platform elevators at Muni-Only Metro Stations and at shared Muni/BART Stations. 16 elevators would be installed at stations that currently only provide one elevator, or where a fully ADA compliant elevator is not available.	The new elevators will ensure consistent and fully ADA compliant access to the underground Metro stations for people with mobility impairments and others needing the elevator for access to the stations.
4	ACCESSIBLE WAYSIDE LIFT REPLACEMENT (Program) Investment Type: Maintain Cost ($ thousands): $2,550 Priority Score: 44	Replaces the four wayside mechanical lifts on Market Street and one wayside mechanical lift at San Jose and Geneva with wayside platforms. New wayside platforms will be fully ADA compliant. The four mechnical lfits on Market Street will be replaced as part of the Better Market Street project.	Replacement of wayside lifts with platforms will improve system access by ensuring that passengers using mobility aids can access the light rail system. Providing accessible boarding platforms will reduce boarding time and maintenance while improving system reliability.
5	SUBWAY STATION WAYFINDING (Program) Investment Type: Enhance Cost ($ thousands): $2,420 Priority Score: 33	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.

Draft Capital Plan Project Summaries

Capital Program: ***Bicycle***
Total Program Cost (000s): ***$582,345***

SFMTA Municipal Transportation Agency

No.	Project Name	Project Description	Project Justification
1	BICYCLE NETWORK EXPANSION (Program) Investment Type: Expand Cost ($ thousands): $64,825 Priority Score: 73	Includes the planning, design and implementation for 35 miles of bicycle network expansion. These facilities extend beyond the 2008 Bicycle Plan to benefit the entire system and is expected to provide additional infrastructure for cyclists, including cycle tracks, colored bike lanes, buffered bike lanes, and shared bike/bus lanes.	These improvements to the bicycle network will help to increase the safety of cyclists and icnrease the level of comfort while encouraging a greater number of cyclists on the network.
2	BICYCLE NETWORK LONG TERM IMPROVEMENTS (Program) Investment Type: Enhance Cost ($ thousands): $370,400 Priority Score: 73	Includes the planning, design and construction for 200 miles of innovative bicycle facilities, including cycle tracks (on-street separated bikeways), colored bicycle lanes, bike boxes, and bicycle boulevards. The program enhances short-term bicycle projects and implements long-term projects. It acts as an upgrade to the 2008 Bicycle Plan network to benefit the entire system and provide additional space for cyclists.	These improvements could contribute towards a decrease in auto congestion and overcrowding on transit vehicles through encouraging more people to bicycle.
3	BICYCLE PLAN NETWORK PROJECTS (Program) Investment Type: Expand Cost ($ thousands): $23,000 Priority Score: 73	Includes the remaining short term projects from the 2008 Bicycle Plan, including 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 bicycle 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.

Draft Capital Plan Project Summaries

Capital Program: ***Bicycle***
Total Program Cost (000s): ***$582,345***

SFMTA Municipal Transportation Agency

No.	Project Name	Project Description	Project Justification
4	LOCATION-SPECIFIC BICYCLE HOTSPOT IMPROVEMENTS (Program) Investment Type: Enhance Cost ($ thousands): $13,500 Priority Score: 67	Series of small scale projects improving the comfort and safety of cyclists by addressing hotspots, or areas with the greatest potential conflicts between cyclists and drivers at 200 locations throughout San Francisco. These treatments will largely be implemented in and around intersections. Specific treatments may include bike signals, bike boxes, left turn improvements and bike counters.	Addresssing location specific hotspots may lead to a greater number of cyclists on the network.
5	BICYCLE SHARING (Program) Investment Type: Expand Cost ($ thousands): $54,000 Priority Score: 66	Provides for 3,000 bicycles available for public use via radio-frequency identification (RFID) smartcards available at self-service pay stations in San Francisco (initially in the northeast quadrant). Coverage area will expand as bicycle sharing fleet increases from inital launch of 350 bicycles in 2013. Includes replacement of bicycles every seven years.	The bicycle sharing facilities encourage bicycling as a viable transportation option, primarily for short trips, which contributes towards a reduction in automobile trips and transit overcrowding. Can help public transit users complete their trip, often called a "last mile" solution and eliminate the need to bring a bicycle on board transit vehicles. reduce noise and air quality impacts through a reduction in the number of auto trips.
6	BICYCLE NETWORK REHABILIATION (Program) Investment Type: Maintain Cost ($ thousands): $33,825 Priority Score: 58	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.

Draft Capital Plan Project Summaries

Capital Program: ***Bicycle***
Total Program Cost (000s): ***$582,345***

SFMTA Municipal Transportation Agency

No.	Project Name	Project Description	Project Justification
7	SECURE BICYCLE PARKING (Program) Investment Type: Expand Cost ($ thousands): $10,800 Priority Score: 37	Includes the installation of 2-3 bicycle parking stations, which are self-service or attended facilities that have controlled access for secure storage of a bicycle; and the installation of 100 bicycle lockers per year. Secure bicycle lockers provide flexible, shared use, on-demand bicycle parking options.	Both of these facilities serve the entire system by providing for bicycle storage needs, making bicycle transportation a safer, more viable, attractive mode in San Francisco.
8	SHORT TERM BICYCLE PARKING (Program) Investment Type: Expand Cost ($ thousands): $12,000 Priority Score: 37	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.

Draft Capital Plan Project Summaries

Capital Program: ***Communications & Information Technology***
Total Program Cost (000s): ***$88,100***

SFMTA Municipal Transportation Agency

No.	Project Name	Project Description	Project Justification
1	CAPITAL ASSET MANAGEMENT SYSTEM (Program) Investment Type: Enhance Cost ($ thousands): $25,000 Priority Score: 45	The program focuses on refining the existing asset inventory and condition of capital assets. Integrates asset management and inventory concepts with capital planning, investment, budgeting and project prioritization. Includes purchase of hardware and software for an enterprise asset management system.	It is intended to maintain quality services by supporting the timely replacement/ rehabilitation of assets. This program could also reduce maintenance costs by helping keep the system in a state of good repair.
2	SFMTA DISASTER RECOVERY SITE Investment Type: Enhance Cost ($ thousands): $1,500 Priority Score: 39	Planning and Implementation of a IT server site to provide operations in the event of a disaster. This would be approached in two phases, implement and test key systems, then expand the site to support all systems. High Availability (HA) is not covered by this site and already addressed with the agency's existing infrastructure.	The SfMTA currently has no IT disaster recovery site and in the event of a disaster that renders both of it's primary data centers inoperable it would not be able to operate any of its IT systems in any capacity. A disaster recorvery site is required to enable the operation of key systems in the event of a disaster.
3	COMMUNICATIONS CONNECTIVITY & PASSENGER INFORMATION (Program) Investment Type: Enhance Cost ($ thousands): $25,200 Priority Score: 35	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 each Muni Metro station 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.

Draft Capital Plan Project Summaries

Capital Program: ***Communications & Information Technology***
Total Program Cost (000s): ***$88,100***

SFMTA Municipal Transportation Agency

No.	Project Name	Project Description	Project Justification
4	Wi-Fi ACROSS ENTIRE AGENCY Investment Type: Expand Cost ($ thousands): $3,100 Priority Score: 28	This project will implement Wi-Fi across all of the agency facilities and offices. Currently Wi-Fi is only readily available in a managed manner at 1 South Van Ness and is not distributed across the other offices or facilities. Expanding Wi-Fi connectivity to all sites will allow the agency to leverage mobile/ portable computing and supports ongoing communication and connectivity initiatives.	Implementing a standard Wi-Fi solution will allow the agency to leverage Wi-Fi dependent technologies and improve communications. Utilization of Tablet and portable computers to improve efficiencies is dependent on a solid enterprise Wi-Fi network. As part of this implementation Fiber connectivity will be completed to all SFMTA sites and redundant links will be implemented for Key Facilities.
5	311 EXPANSION Investment Type: Expand Cost ($ thousands): $2,900 Priority Score: 27	Expands SFMTA usage of the 311 System to capture agency-wide customer complaints, including integrating customer complaints into Trapeze, parking control officer (PCO) complaints, etc. The project includes wireless, handheld devices, information technology infrastructure improvements (including hardware and software interfaces to communicate with legacy technology systems), automation of intake and distribution of customer service requests and/or complaints for all SFMTA divisions.	Enhanced efficiency in the intake and resolution of customer service requests will improve system quality as communication and request resolution improve. Reported incidents will help inform the strategic deployment of agency resources.
6	ELECTRONIC DOCUMENT MANAGEMENT Investment Type: Expand Cost ($ thousands): $8,600 Priority Score: 15	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.

Draft Capital Plan Project Summaries

Capital Program: ***Communications & Information Technology***
Total Program Cost (000s): ***$88,100***

SFMTA Municipal Transportation Agency

No.	Project Name	Project Description	Project Justification
7	ON BOARD CLIPPER READER UPGRADES Investment Type: Enhance Cost ($ thousands): $9,300 Priority Score: 14	Clipper readers allow riders to use their Clipper cards, a cashless form of transit fare that can be loaded with cash or connected to bank accoutn or credit card, to pay for fares on SFMTA as well as other regional operators. Replacement of the existing Clipper readers (approx. 3500 units) will needed by 2014. Currently the readers are not able to integrate with Radio and only support Clipper. Replacing the existing readers with units that integrate with Radio, support NFC (open payment), QR/Barcodes and are field proven will address future compatibility issues and current equipment performance issues.	The Clipper system is due to be replaced by 2019, however the existing equipment was installed in 2007 and has an operating life of 5 years. The current equipment needs to be replaced to address its on going performance reliability issues. Replacing the equipment at this juncture will allow for integration to the new Radio system providing single sign on for operators and enable the agency to leverage newer technology as an adjunct to the Clipper system.
8	LEARNING MANAGEMENT SYSTEM Investment Type: Expand Cost ($ thousands): $11,500 Priority Score: 11	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 new training programs, as well as the timely dissemination of computerbased training materials within the SFMTA resulting in a greater level of training and access to training materials across the agency

Draft Capital Plan Project Summaries

Capital Program: ***Communications & Information Technology***
Total Program Cost (000s): ***$88,100***

SFMTA Municipal Transportation Agency

No.	Project Name	Project Description	Project Justification
9	VoIP IMPLEMENTATION Investment Type: Maintain Cost ($ thousands): $1,000 Priority Score: 11	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.

Draft Capital Plan Project Summaries

Capital Program: ***Facility***
Total Program Cost (000s): ***$1,759,100***

SFMTA Municipal Transportation Agency

No.	Project Name	Project Description	Project Justification
1	REAL ESTATE VISION FOR THE 21ST CENTURY - FACILITY MODERNIZATION & REHABILITATION (Program) Investment Type: Maintain Cost ($ thousands): $590,000 Priority Score: 69	Provides for the rehabilitation of facilities across the city. Aging facilities will be repaired or rebuilt, with a focus on optimizing the space to accommodate planned growth. Other improvements will be made to ensure that buildings are seismically retrofitted and provide a safe workspace for SFMTA employees.	The resulting improvements will provide safer and healthier working conditions and will ensure that the transportation system is more efficient. Efficient and properly designed facilities are key to maintaining the transportaiton system in a state of good repair.
2	OPERATIONS, MAINTENANCE, AND ADMINISTRATION SHOP EQUIPMENT (Program) Investment Type: Maintain Cost ($ thousands): $360,000 Priority Score: 69	Provides for ongoing acquisition and replacement of the equipment needed to support all aspects of SFMTA operations, maintenance and administrative functions.	Timely replacement and enhancement of the shop equipment increases SFMTA's ability to provide reliable service and reduce incidents stemming from faulty equipment. This project is critical to maintaining a state-of-good-repair of the systemwide shop equipment assets that support operations, maintenance, and administration.
3	SUBWAY STATION REHABILITATION (Program) Investment Type: Maintain Cost ($ thousands): $645,000 Priority Score: 67	Provides for ongoing rehabilitation and improvement projects in the Metro subway stations. It includes rehabilitation of substructure, superstructure, Heating, Ventilating, and Air Conditioning (HVAC) systems, electrical systems, plumbing systems, as well as painting and platform edge detection tile replacement.	Well-maintained subway station facilities will reduce the risk of safety hazards due to deteriorating systems. Timely replacement of assets allows for consistent and efficient station operations, i.e., replaces old systems with energy-efficient ones.
4	CABLE CAR BARN FACILITY IMPROVEMENTS Investment Type: Enhance Cost ($ thousands): $7,000 Priority Score: 48	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.

Draft Capital Plan Project Summaries

Capital Program: ***Facility***
Total Program Cost (000s): ***$1,759,100***

SFMTA Municipal Transportation Agency

No.	Project Name	Project Description	Project Justification
5	EMPLOYEE RESTROOMS IMPROVEMENTS (Program) Investment Type: Enhance Cost ($ thousands): $10,000 Priority Score: 30	Includes major rehabilitation, preservation, and improvement of 110 existing restroom facilities at various locations, including Operations Central Control (OCC), subway stations, etc. and construction of new operator restrooms.	This project will improve and enhance employee facilities, potentially leading to healthier working environments.
6	ELECTRONIC L.E.D. SIGNAGE SYSTEM - EXPANSION TO NEXTMUNI (Program) Investment Type: Enhance Cost ($ thousands): $2,100 Priority Score: 28	Includes purchase and installation of public information signage at the entrances of all subway stations to alert and inform Muni passengers of the status of Muni services, i.e., a modernization and expansion of the NextBus system.	This project will improve reliability and allow passengers to make informed transit access decisions.
7	RUBBER TIRE DIVISIONS WASH RACK REPLACEMENT Investment Type: Enhance Cost ($ thousands): $12,000 Priority Score: 27	Provides new industry standard wash racks for all five Rubber Tire Transit Divisions. Wash racks will be able to handle standard and/or articulated motor coaches depending on the division in which they are installed.	This project will result in cleaner buses, with the potential of improving customer satisfaction. It will also improve the working environment by providing more effective and modernized equipment that reduces water resource consumption efficiently utilizes necessary cleaning chemicals.
8	TRANSIT OPERATIONS FACILITIES SOLAR PANELS Investment Type: Enhance Cost ($ thousands): $20,000 Priority Score: 19	Installation of solar panels in open roof space at the Woods, Potrero, Presidio and Flynn Transit Facilities. The resulting electrical generation could be to power each facility and any 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.

Draft Capital Plan Project Summaries

Capital Program: ***Facility***
Total Program Cost (000s): ***$1,759,100***

SFMTA Municipal Transportation Agency

No.	Project Name	Project Description	Project Justification
9	CABLE CAR MUSEUM RENOVATION Investment Type: Maintain Cost ($ thousands): $13,000 Priority Score: 11	Renovates and improves the Cable Car Museum, located at the Cable Car Barn at 1201 Mason St.	While this project will not provide operational benefits, it will help maintain a key tourist attraction, as well as an important source of agency revenue.
10	REAL ESTATE VISION FOR THE 21ST CENTURY - REAL ESTATE PROPERTY ACQUISITION (Program) Investment Type: Expand Cost ($ thousands): $80,000 Priority Score: 09	Allows for the selective leasing or acquisition of new property to better accommodate the real estate needs of the agency, particularly transit operations. This program allows the agency to be proactive in planning for its future needs.	A new facility would provide the flexibility to implement the RE Vision in a shorter timeline, increasing SFMTA vehicle facility capacities and maintenance capabilities sooner.
11	REAL ESTATE VISION FOR THE 21ST CENTURY - TRANSIT ORIENTED DEVELOPMENT (Program) Investment Type: Enhance Cost ($ thousands): $20,000 Priority Score: 07	SFMTA owns many properties that are functionally obsolete, or in some cases no longer necessary for the operation of the system. 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, maintain, and expand the transportation system.

Draft Capital Plan Project Summaries

Capital Program: ***Fixed Guideway***
Total Program Cost (000s): ***$1,994,000***

SFMTA Municipal Transportation Agency

No.	Project Name	Project Description	Project Justification
1	AUTOMATIC TRAIN CONTROL SYSTEM (Program) Investment Type: Maintain Cost ($ thousands): $200,000 Priority Score: 83	Provides for the phased rehabilitation and replacement of the Automatic Train Control System (ATCS). ATCS equipment is stored at Central Control, wayside control rooms, on the tracks, and in light rail vehicles and is composed of four distinct subsystems: Vehicle, Wayside, Vehicle Control Center, and System Management Center. On board vehicle equipment includes computers that control the propulsion and braking systems. Wayside equipment includes communications systems that controls signals and switches. The Vehicle Control Center is a system that calculates and controls safe movements. The System Management Center operates and manages the overall ATCS.	A proper functioning ATCS is vital to the day-to-day operations of the San Francisco transit system. Without the ATCS trains in the Muni Metro Tunnel are required to operate manually which increases travel time and reduces overall capacity of the Muni Metro Tunnel and the overall Muni System. Muni Metro travel time reliability is directly reliant on a functional ATCS.
2	RAIL REPLACEMENT (Program) Investment Type: Maintain Cost ($ thousands): $660,000 Priority Score: 80	Provides for the phased design and replacement of approximately 60 miles of the trackway and related systems serving the light rail and cable car lines.	The primary focus of this program is to maintain the light rail and cable car trackways in a state of good repair by replacing components that have reached the end of their useful life.
3	OVERHEAD AND TRACTION POWER SYSTEM REHABILITATION (Program) Investment Type: Maintain Cost ($ thousands): $890,000 Priority Score: 73	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.

Draft Capital Plan Project Summaries

Capital Program: ***Fixed Guideway***
Total Program Cost (000s): ***$1,994,000***

SFMTA Municipal Transportation Agency

No.	Project Name	Project Description	Project Justification
4	CABLE CAR INFRASTRUCTURE (Program) Investment Type: Maintain Cost ($ thousands): $154,000 Priority Score: 70	Covers a wide variety of Cable Car specific 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.

Draft Capital Plan Project Summaries

Capital Program: ***Fleet***
Total Program Cost (000s): ***$4,104,250***

SFMTA Municipal Transportation Agency

No.	Project Name	Project Description	Project Justification
1	LIGHT RAIL VEHICLE REPLACEMENT (Program) Investment Type: Maintain Cost ($ thousands): $1,010,000 Priority Score: 81	Includes replacement of the entire fleet of Breda light rail vehicles when they reach the end of their useful life, with 151 new light rail vehicles (LRVs) that meet the operational and capacity needs of the Metro light rail system.	This project will provide for the modernization of the existing light rail vehicle (LRV) fleet and will also allow for greater reliability and comfort.
2	MOTOR COACH REPLACEMENT (Program) Investment Type: Maintain Cost ($ thousands): $550,000 Priority Score: 81	Entails the replacement of 564 existing standard and articulated motor coaches (hybrid and diesel) with hybrid motor coaches through 2032. This program seeks to replace the existing aging fleet to a state of good repair, replacing old, severely overtaxed equipment with the latest and most advanced hybrid technology available.	The new coaches will offer greater reliability and safety with enhanced transmission-based brake retarders, composite materials, slip resistant flooring, and better mirrors. As a result, this project will improve agency safety and security, as well as improved transit reliability, on-time efficiency, and customer satisfaction.
3	HISTORIC VEHICLE REHABILITATION (Program) Investment Type: Maintain Cost ($ thousands): $66,000 Priority Score: 78	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, and a major overhaul.	This program will maintain a high level of system reliability, safety, and productivity, providing quality service to patrons.

Draft Capital Plan Project Summaries

Capital Program: ***Fleet***
Total Program Cost (000s): ***$4,104,250***

SFMTA Municipal Transportation Agency

No.	Project Name	Project Description	Project Justification
4	TROLLEY COACH REPLACEMENT (Program) Investment Type: Maintain Cost ($ thousands): $565,000 Priority Score: 77	Provides for the systematic replacement of the 333 vehicles in the trolley coach fleet. This project replaces the trolley coach vehicles at the end of their 15-year useful life, maintaining the trolley coach fleet in a state-of-good-repair. During replacement the mix of vehicles sizes may be adjusted to align with the Transit Fleet Management Plan projections of ridership (greater 60' vehicles, fewer 40' vehicles).	Timely replacement of trolley coach vehicles reduces the number of incidents and breakdowns from vehicle deterioration and age, contributing to greater reliability and a cleaner and more comfortable experience for the customer and employee.
5	TRANSIT ONLY LANE ENFORCEMENT (TOLE) AND CLOSED CIRCUIT VIDEO (Program) Investment Type: Enhance Cost ($ thousands): $75,000 Priority Score: 75	Equips all SFMTA transit vehicles with forward facing parking detection devices to document vehicles parked in transit only lanes and issue parking citations based on that video evidence. Also equips vehicles with on-board closed circuit video for safety and security purposes.This security enhancement would help deter illegal parking practices, including double parking in lanes.	The TOLE cameras will reduce congestion on major corridors, thereby improving service reliability and transit system efficiency. The closed circuit video cameras will improve safety and on-board security by reviewing incidents and preparing for them in the future.
6	PARATRANSIT FLEET REPLACEMENT (Program) Investment Type: Maintain Cost ($ thousands): $20,000 Priority Score: 72	Provides for the replacement of approximately 67 large-sized vans at the end of their useful life, which is betwen five and seven years. Vans are designed to carry one to two wheelchairs and 12 seated passengers.	This project will replace the current fleet, providing for newer, modern vehicles and better access for the physically-challenged.

Draft Capital Plan Project Summaries

Capital Program: ***Fleet***
Total Program Cost (000s): ***$4,104,250***

SFMTA Municipal Transportation Agency

No.	Project Name	Project Description	Project Justification
7	LIGHT RAIL VEHICLE MID-LIFE OVERHAULS (Program) Investment Type: Maintain Cost ($ thousands): $750,000 Priority Score: 72	Includes the systematic rehabilitation and overhaul of all 151 light-rail vehicles every five years, including Heating Ventilating and Air Conditioning (HVAC), brakes, couplers, pantograph, propulsion, doors, car body, seats, and cab.	This rehabilitation will ensure a higher state of system reliability throughout the life of the vehicles and will reduce maintenance costs.
8	TROLLEY COACH MIDLIFE OVERHAULS (Program) Investment Type: Maintain Cost ($ thousands): $110,000 Priority Score: 70	Implements systematic mid-life overhauls of all 333 vehicles in the trolley coach fleet. This program includes the rehabilitation and replacement of frames, inverter replacement, battery management, and minor overhaul of major components. This program of rebuilds and overhauls involve modernization of equipment to meet current standards (e.g., accessibility).	The primary focus of this program is ensuring the reliability of the trolley coach fleet, reduce unscheduled maintenance, allowing the vehicles to effectively operate throughout its projected useful life.
9	MOTOR COACH MIDLIFE OVERHAULS (Program) Investment Type: Maintain Cost ($ thousands): $165,000 Priority Score: 70	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 rehabiliation of the motor coach fleet reduces the number of breakdowns and improves service reliability.

Draft Capital Plan Project Summaries

Capital Program: ***Fleet***
Total Program Cost (000s): ***$4,104,250***

SFMTA Municipal Transportation Agency

No.	Project Name	Project Description	Project Justification
10	CABLE CAR VEHICLE REHABILITATION (Program) Investment Type: Maintain Cost ($ thousands): $18,750 Priority Score: 68	Encompasses phased overhaul and reconstruction of the Cable Car fleet, with a total of 40 vehicles undergoing major or minor rehabilitation by FY 2032: Major rehabilitation, consisting of 17 Powell Cars and 11 California Cars; and minor rehabilitation, consisting of 10 Powell Cars and 2 California Cars.	This program will maintain a high level of system reliability, safety, and productivity, providing quality service to patrons.
11	LIGHT RAIL VEHICLE EXPANSION (Program) Investment Type: Expand Cost ($ thousands): $260,000 Priority Score: 60	Provides for the purchase of 40 additional light rail vehicles to increase the level of service as identified in the Transit Fleet Management Plan. Vehicles necessary for providing Central Subway service as well as service to major developments (Parkmerced, Hunters Point/Candlestick Point) are included in these 40 vehicles.	This project will provide for inceased service along existing and under construction light rail lines. Expansion of the Light Rail fleet with modern vehicles will provide greater capacity, allow for more frequent service, better reliability, and passenger comfort.
12	MOTOR COACH EXPANSION (Program) Investment Type: Expand Cost ($ thousands): $160,500 Priority Score: 54	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, add new routes to serve major new developments, and allow for more frequent service. In addition, new fleet procurements will help meet operational needs for larger capacity vehicles and help meet zero emissions targets.

Draft Capital Plan Project Summaries

Capital Program: ***Fleet***
Total Program Cost (000s): ***$4,104,250***

SFMTA Municipal Transportation Agency

No.	Project Name	Project Description	Project Justification
13	FAREBOXES-REPLACEMENT (Program) Investment Type: Maintain Cost ($ thousands): $159,000 Priority Score: 44	Includes the following activities: replaces 1,250 fare boxes; procures new probing equipment; refurbishes vault equipment; procures 72 additional fare boxes to serve as a float when a batch of fare boxes is being refurbished; and purchases a data collection system at the yard and a new central computer for reporting and data storage.	This project will improve revenue collection and speed up passenger boarding, leading to better system reliability and reductions in travel time.
14	NON-REVENUE VEHICLE REPLACEMENT (Program) Investment Type: Maintain Cost ($ thousands): $185,000 Priority Score: 32	Consists of the purchase and replacement of non-revenue vehicles, such as specialized maintenance vehicles, as well as light and heavy duty trucks and sedans that are used throughout the agency. This project will replace existing non-revenue vehicles at the end of their useful life.	Replacing vehicles at or past their useful life with more fuel efficient and cleaner vehicles ensures that employees can efficiently access locations where there are service incidents and perform corrective measures.
15	AUTOMATIC PASSENGER COUNTING (APC) SYSTEM Investment Type: Enhance Cost ($ thousands): $10,000 Priority Score: 28	Procures and installs on-board automatic passenger counting equipment on Muni's light rail revenue fleet, exclusive of historic streetcars 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.	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 supervisors with vehicle passenger information to make the decision to disperse additional vehicles on overloaded routes.

Draft Capital Plan Project Summaries

Capital Program: ***Pedestrian***
Total Program Cost (000s): ***$371,815***

No.	Project Name	Project Description	Project Justification
1	PEDESTRIAN STRATEGY CORRIDOR AND LOCALIZED TREATMENTS (Program) Investment Type: Enhance Cost ($ thousands): $363,000 Priority Score: 59	Plans, designs and implements infrastructure elements identified in the San Francisco Pedestrian Strategy (2013). Elements include major street design changes phased in over time via a pilot and evaluation process and localized improvements along identified corridors (44 miles) and spot locations. Specific improvements for pedestrians under this program may include sidewalk widening, road diets, creating pedestrian oriented corridors, closing gaps in the pedestrian network, pedestrian bulbouts, rumble strips, pedestrian refuges, raised crosswalks, and other methods for physically altering the roadway.	These projects should help meet Pedestrian Strategy goals of reducing pedestrian injuries, reducing neighborhood inequalities in pedestrian injuries, increasing walking trips and reducing driving for short trips. These infrastructure investments contribute to high quality walking environments and meeting the goals established in the Mayor's Pedestrian Safety Executive Directive (2010) and SFMTA's Pedestrian Strategy (2013).
2	STRIPING AND SIGNAGE (Program) Investment Type: Enhance Cost ($ thousands): $8,815 Priority Score: 49	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.

Draft Capital Plan Project Summaries

Capital Program: ***Parking***
Total Program Cost (000s): ***$467,900***

SFMTA Municipal Transportation Agency

No.	Project Name	Project Description	Project Justification
1	PARKING FACILITY REHABILITATION (Program) Investment Type: Maintain Cost ($ thousands): $234,000 Priority Score: 55	Includes major rehabilitation, preservation, and improvement of 38 city-owned parking facilities that provide nearly 15,000 parking spaces, 90,000 sq. ft. of retail space. 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 facilities that generate over $85M in annual gross revenues. When completed, this project will extend the useful life of major revenue-generating assets, enhance safety of public facilities, improve parking management, as well as help provide better services for those using cleaner transportation alternatives such as bicycling, carpooling and carsharing.
2	PARKING FACILITY STRUCTURAL AND SEISMIC UPGRADES (Program) Investment Type: Maintain Cost ($ thousands): $79,000 Priority Score: 50	Most of the SFMTA's parking structures are at least 20 year old (oldest garage was built in 1941). Performing a structural analysis to assess the integrity of the SFMTA garages is the first and necessary step to ensure the viability of SFMTA parking assets in the event of an earthquake. The second step is to implement structural and seismic upgrades, where needed.	Improving the siesmic and structural integrity of existing parking structures increases the resiliency of the facilities in the event of a natural disaster
3	PARKING ACCESS REVENUE CONTROL SYSTEM Investment Type: Enhance Cost ($ thousands): $38,000 Priority Score: 38	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.

Draft Capital Plan Project Summaries

Capital Program: ***Parking***
Total Program Cost (000s): ***$467,900***

SFMTA Municipal Transportation Agency

No.	Project Name	Project Description	Project Justification
4	REPALCE PARKING METERS CITYWIDE (Program) Investment Type: Maintain Cost ($ thousands): $101,000 Priority Score: 36	Replaces and modernizes equipment for all 24,000 existing parking spaces and installs equipment for an additional 6,000 spaces, in coordination with SFpark pilot projects. Existing meters are outdated and subject to vandalism and mechanical problems.	Modernizing existing parking meters will improve reliability and increase driver convenience by accepting non-cash forms of payment. Modernized meters will also allow for parking to be priced for greatest occupancy.
5	ELECTRIC VEHICLE CHARGING INFRASTRUCTURE Investment Type: Expand Cost ($ thousands): $2,400 Priority Score: 31	To enable drivers to shift from gasoline to Electric Vehicles (EVs), San Francisco has begun providing public chargers at city-owned parking garages to extend the range EV drivers can travel away from their "home" chargers. The City is installing public chargers at 20 city-owned locations – primarily at parking garages that already have sufficient electrical service to support the EV chargers. To broaden the public infrastructure to all parts of the City, EV chargers will be installed at city-owned locations, such as parking garages.	Providing EV chargers at multiple locations throughout the city encourages the use of EVs, thus reducing greenhouse gas emissions, noise pollution, and other harmful pollution
6	INSTALL VEHICLE DETECTION SENSORS (Program) Investment Type: Enhance Cost ($ thousands): $13,500 Priority Score: 29	Installs vehicle detection sensors and related equipment at 27,000 existing and additional metered parking spaces, in coordination with SFpark pilot projects.	Sensors feeding information to a parking meter messaging system will help inform drivers of vacant parking, thereby reducing vehicle miles traveled (VMT), vehicle emissions, and noise.

Draft Capital Plan Project Summaries

Capital Program: ***Safety***
Total Program Cost (000s): ***$45,700***

SFMTA Municipal Transportation Agency

No.	Project Name	Project Description	Project Justification
1	RAIL TRAINING SIMULATOR Investment Type: Enhance Cost ($ thousands): $2,000 Priority Score: 64	Purchase and installation of one full-scale rail training simulator and virtual learning environment. The project also includes the purchase of Audio Visual and multimedia setup for five classrooms. This project will modernize SFMTA's existing training system with state-of-the-art rail training simulators and a virtual learning environment. Potential sites for the simulator include Muni Metro East and 2650 Bayshore.	Personnel trained would use what they have learned to improve the comfort and safety of the passengers that they carry. Personnel would have a better understanding of the rail vehicle and the rail system and would be better prepared to pass required operational exams.
2	BUS OPERATOR TRAINING SIMULATORS Investment Type: Enhance Cost ($ thousands): $1,000 Priority Score: 56	Includes purchase and installation of two 360-degree, computer-based graphic training stations. These simulators will be used to train transit operators to provide control over difficult weather conditions, equipment malfunctions, traffic behaviors and other real-world situations. Potential locations for the simulators include Muni Metro East or 2650 Bayshore	This project will provide for greater safety training, for the purposes of being better prepared in times of emergency and under inclement weather conditions. Operators will have a better understanding of the vehicles they operate.
3	FACILITY SAFETY IMPROVEMENTS Investment Type: Enhance Cost ($ thousands): $4,350 Priority Score: 48	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 project improve the safety of the work environment. Investments in safety infrastructure also assist in promoting a culture of safety.

Draft Capital Plan Project Summaries

Capital Program: ***Safety***
Total Program Cost (000s): ***$45,700***

SFMTA Municipal Transportation Agency

No.	Project Name	Project Description	Project Justification
4	SUBWAY FIRE ALARM & DETECTION Investment Type: Enhance Cost ($ thousands): $25,000 Priority Score: 48	This project will upgrade the current fire alarm and detection system at shared Muni Metro/ BART stations. The work involves voluntarily upgrading the facilities to the fire alarm and detection requirements of San Francisco Code (2010 edition). The scope of work includes replacing and installing fire alarm control panel (FACP), emergency voice system, audible alarm notification appliances, strobes, alarm annunciator, power supply to the FACP and emergency voice/ alarm communication system. This project would be initiated and led by BART.	This project will result in a quicker detection of mior incidents, elimination of false alarms, and a universal design for the fire alarm and detection equipment.
5	AUTOMATED PHOTO ENFORCEMENT SYSTEM ENHANCEMENT Investment Type: Enhance Cost ($ thousands): $7,350 Priority Score: 46	Provides for the upgrade of existing photo enforcement equipment at 43 approaches from wet film to digital film systems. Also provides for purchase and installation of Automated Photo Enforcement systems at 10 new locations throughout the City.	Automated Photo Enforcement systems improve intersection safety, reducing the number of vehicle crashes from red light running. Automated photo enforcement systems can improve the safety of the transportation system and provide greater comfort to both bicyclists and pedestrians.
6	BICYCLE SAFETY EDUCATION (Program) Investment Type: Enhance Cost ($ thousands): $12,000 Priority Score: 40	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.

Draft Capital Plan Project Summaries

Capital Program: ***Security***
Total Program Cost (000s): ***$56,535***

No.	Project Name	Project Description	Project Justification
1	TECHNOLOGY IN TRANSPORTATION EMERGENCY MANAGEMENT Investment Type: Enhance Cost ($ thousands): $20,475 Priority Score: 63	Implementation of technology projects from industry best practices to enhance rail system security and employee/customer protection during normal operations as well as to augment response capabilities for all-hazard disasters on the rail system. Systems include PROTECT chemical and contaminet detection and modeling system, robotic and drone detection equipment, digital message boards, redundant communication systems, and additional security cameras	These projects enhance the transportation operations and emergency management capabilities of SFMTA.
2	INCIDENT MANAGEMENT PLANNING AND RESPONSE Investment Type: Enhance Cost ($ thousands): $3,195 Priority Score: 60	Implementation of facilities improvements at the Department Operation Center, satellite communications equipment, and a dedicated incident response vehicle. Projects are driven by after-action reports from incident response exercises.	These projects provide the proper equipment and supplies for the Emergency operations Center, which greatly enhances SFMTA incident planning and response capabilities. Further, an audit finding will result if the SFMTA does not review and implement the recommendations in the exercise after-action reports and improvement plans.
3	SURVEILLANCE, ACCESS CONTROL, AND SECURITY SYSTEM ENHANCEMENTS Investment Type: Enhance Cost ($ thousands): $19,087 Priority Score: 59	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.

Draft Capital Plan Project Summaries

Capital Program: ***Security***
Total Program Cost (000s): ***$56,535***

No.	Project Name	Project Description	Project Justification
4	ALL-HAZARD EMERGENCY MITIGATION, PREPAREDNESS, & RESPONSE Investment Type: Enhance Cost ($ thousands): $13,778 Priority Score: 55	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.	Projects would improve safety and security for employees and customers and reduce the costs and consequences of disasters.

Draft Capital Plan Project Summaries

Capital Program: ***Taxi***
Total Program Cost (000s): ***$3,025***

SFMTA Municipal Transportation Agency

No.	Project Name	Project Description	Project Justification
1	TAXI TOPLIGHT IMPROVEMENT Investment Type: Enhance Cost ($ thousands): $1,350 Priority Score: 64	Provide or incentivize new toplights that will provide taxi vehicles with higher visibility, emergency/panic lights on exterior, advertising space that does not interfere with the availability indicator, and unique SF brand identity. These toplights will not be controlled by the meter and will be operated manually.	Toplights will clearly communicate taxi availability, increase driver and passenger safety, and emulate the unique look and feel of San Francisco.
2	CAB POOLING PILOT Investment Type: Enhance Cost ($ thousands): $750 Priority Score: 39	Taxis would operate along a fixed route to augment existing overburdened transit service, or congested corridors. Taxis would be provided a Scrolling LED light to indicate the Cab-Pooling service. Drivers will then utilize a standard rate and drive along established set pickup locations. The diver will then pick-up as many riders along the route and drop off riders at any point along the route, allowing a faster, more flexible transportation alternative if you require a seat, storage, or are in a rush.	Provides for supplementary service along corridors with transit capacity or congestion constraints for persons with personal belongings that require space on overcrowded vehicles or when shared ride services are preferred over transit.
3	INCREASE TAXI STANDS Investment Type: Expand Cost ($ thousands): $350 Priority Score: 28	In an effort to increase service to the outer city, 15 additional taxi stands will be established around major hail hubs to better manage and direct taxi flow and utilization.	Taxi stands establish locations so that taxis can be easier found throughout the city and aids in movement throughout the city for individuals or groups who chose, or require, taxis as their travel mode.
4	BICYCLE RACKS FOR TAXIS Investment Type: Enhance Cost ($ thousands): $575 Priority Score: 10	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.

Draft Capital Plan Project Summaries

Capital Program: ***Traffic Calming***
Total Program Cost (000s): ***$334,300***

SFMTA Municipal Transportation Agency

No.	Project Name	Project Description	Project Justification
1	ARTERIAL AND COMMERCIAL STREETS TRAFFIC CALMING (Program) Investment Type: Enhance Cost ($ thousands): $140,000 Priority Score: 50	Program to calm traffic along 7 high-injury arterial or busy commercial corridors. Examples include implementing road diets, narrowing travel lanes, and installing landscaping. Public spaces can also be created or enhanced by traffic calming projects.	Traffic calming projects improve safety by reducing speeding along arterial and commercial streets. These projects also enhance the comfort of people walking and bicycling.
2	LOCAL STREETS TRAFFIC CALMING (Program) Investment Type: Enhance Cost ($ thousands): $54,300 Priority Score: 24	Program to install traffic calming devices such as speed humps, pedestrian bulb-outs, traffic circles, median islands at various locations in the city. Some of the more intensive traffic calming projects may include features such as chicanes, traffic diverters, signalized ped crosswalks and street closures. Program is comprised of Application-Based Residential Traffic Calming, and Proactive Residential Area Improvement sub-programs. Public spaces can also be created or enhanced by traffic calming projects.	Traffic calming projects improve safety by reducing speeding in neighborhoods. These projects also enhance the comfort of people walking and bicycling.
3	SCHOOL STREETS TRAFFIC CALMING (Program) Investment Type: Enhance Cost ($ thousands): $150,000 Priority Score: 24	Provides for the evaluation, design, and implementation of context specific traffic calming measures at approximately 150 schools. Traffic calming measures range from improved signals and signage to pedestrian bulbs and streetscape measures, to in-road treatments such as speed humps.	These projects will improve pedestrian safety, and promote walking for all school aged children in San Francisco.

Draft Capital Plan Project Summaries

Capital Program: ***Traffic Signals & Signs***
Total Program Cost (000s): ***$463,580***

SFMTA Municipal Transportation Agency

No.	Project Name	Project Description	Project Justification
1	TRAFFIC SIGNAL AND SIGN UPGRADES (Program) Investment Type: Maintain Cost ($ thousands): $310,000 Priority Score: 55	Encompass upgrades of existing traffic control devices, including modifications to existing signals that lack a pedestrian feature, mast arms or related amenities. The program also includes the upgrade or replacement of signal equipment that is at the end of its useful life (50 years). The program anticipates upgrading 90 signals per year (full or partial upgrade) and 80 signal cabinets per year. Funded sign work in this category includes the graffiti program, where existing signs are replaced with signs that have higher reflectivity, and a coating that eases graffiti removal.	This program will improve safety, reducing the number of injuries through improved traffic control (e.g., where pedestrian countdown signals and signal visibility improvements are provided as part of a signal modification effort).
2	NEW TRAFFIC SIGNALS & SIGNS (Program) Investment Type: Enhance Cost ($ thousands): $47,500 Priority Score: 49	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.

Draft Capital Plan Project Summaries

Capital Program: ***Traffic Signals & Signs***
Total Program Cost (000s): ***$463,580***

SFMTA Municipal Transportation Agency

No.	Project Name	Project Description	Project Justification
3	SFGO (Program) Investment Type: Enhance Cost ($ thousands): $106,080 Priority Score: 47	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.

Draft Capital Plan Project Summaries

Capital Program: ***Transit Optimization & Expansion***
Total Program Cost (000s): ***$5,389,320***

SFMTA Municipal Transportation Agency

No.	Project Name	Project Description	Project Justification
1	19TH AVENUE GRADE SEPARATION & WESTSIDE M-LINE REALIGNMENT Investment Type: Enhance Cost ($ thousands): $400,000 Priority Score: 76	Improvements on M-Ocean View from Sloat Boulevard to Randolph Street to reduce traffic and pedestrian conflicts and improve service quality. Includes a grade-separated crossing under 19th Avenue to westside alignment near Stonestown. M-line would then continue as partial or full subway along San Francisco State University and into Parkmerced, with grade-separated crossing of 19th or J. Serra Boulevard to Randolph Street. Includes station, streetscape and pedestrian safety enhancements. Realignment within Parkmerced and Parkmerced transit improvements are discussed independently.	Provides for improved safety and security, reduced travel time, and increased reliability.
2	TRANSIT EFFECTIVENESS PROJECT (Program) Investment Type: Enhance Cost ($ thousands): $298,000 Priority Score: 70	Provides for implementation of the Transit Effectiveness Project (TEP)through a series of 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.

Draft Capital Plan Project Summaries

Capital Program: ***Transit Optimization & Expansion***
Total Program Cost (000s): ***$5,389,320***

SFMTA Municipal Transportation Agency

No.	Project Name	Project Description	Project Justification
3	GEARY LIGHT RAIL TRANSIT Investment Type: Expand Cost ($ thousands): $1,400,000 Priority Score: 70	Constructs a surface-subway, light rail transit (LRT) line to replace the 38 Geary bus lines. Geary is in the Four Corridors plan and is the next priority for major investment after the Central Subway. This is a long-term proposal with Geary Bus Rapid Transit Service providing near-term improvements until funding for the LRT can be identified.	This project will provide a higher capacity service along the corridor, providing passengers with improved speed, reliability and comfort.
4	GEARY BUS RAPID TRANSIT Investment Type: Expand Cost ($ thousands): $224,000 Priority Score: 68	Designs and implements a rail-ready BRT project on Geary Blvd., from the Transbay Terminal to 33rd Ave. The project includes planning, environmental, design and construction. Project elements may include dedicated lanes, better shelters, and passenger information systems.	This project would increase the service reliability, person capacity, passenger comfort and attractiveness and reduce travel time along the corridor.
5	CHINATOWN/NORTH BEACH LIGHT RAIL TRANSIT EXTENSION Investment Type: Expand Cost ($ thousands): $1,100,000 Priority Score: 64	Provides for the study and extension of the T-Third rail line approximately 1 mile north, from the planned Central Subway terminal at Stockton/Clay through North Beach and into Fisherman's Wharf. This project will provide a higher capacity service along the corridor, introducing improved speed, reliability and comfort.	Extension would connect Fisherman's Wharf and North Beach, a regional trip generator and one of the most dense neighborhoods in San Francisco, with efficient and reliable regional transit service.
6	RAIL NETWORK BOTTLENECK IMPROVEMENTS (Program) Investment Type: Enhance Cost ($ thousands): $400,000 Priority Score: 64	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.

Draft Capital Plan Project Summaries

Capital Program: ***Transit Optimization & Expansion***
Total Program Cost (000s): ***$5,389,320***

SFMTA Municipal Transportation Agency

No.	Project Name	Project Description	Project Justification
7	BALBOA PARK STATION INTERMODAL IMPROVEMENTS Investment Type: Enhance Cost ($ thousands): $25,500 Priority Score: 58	Improvements that provide for better intermodal connections at Balboa Park Station as identified in the San Francisco Planning Department's Balboa Park Station Area Plan. The program includes feasibility analysis and cost estimates. Included in this program are the Geneva Transit Plaza, J/K/M boarding areas, kiss & ride, pedestrian crossing signals, and curb bulbs projects.	This project would implement priority projects that improve passenger information and amenities, accessibility, and safety.
8	16TH STREET BUS RAPID TRANSIT Investment Type: Expand Cost ($ thousands): $75,000 Priority Score: 57	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 reduced 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.

Draft Capital Plan Project Summaries

Capital Program: ***Transit Optimization & Expansion***
Total Program Cost (000s): ***$5,389,320***

SFMTA Municipal Transportation Agency

No.	Project Name	Project Description	Project Justification
9	BETTER MARKET STREET Investment Type: Enhance Cost ($ thousands): $325,000 Priority Score: 56	Includes planning, conceptual engineering, environmental review, public outreach and construction of the SFMTA portion of the Better Market Street Project. Concepts will be developed and evaluated for urban design of sidewalks and boarding islands, transit facilities and operations, pedestrian facilities (e.g., crosswalks), signal timing, and bicycle facilities (e.g., cycle tracks, bike lanes, parking). The study area is bounded by blocks just north of Market St., Folsom St., Octavia Blvd. and The Embarcadero.	This project will improve the quality of the public realm and optimize sustainable mobility modes (transit, walking and cycling), so that they are pleasant, reliable, efficient and comfortable for all users.
10	TRANSIT SPOT RELIABILITY IMPROVEMENTS (Program) Investment Type: Enhance Cost ($ thousands): $10,000 Priority Score: 55	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 operational resource needs.

Draft Capital Plan Project Summaries

Capital Program: ***Transit Optimization & Expansion***
Total Program Cost (000s): ***$5,389,320***

SFMTA Municipal Transportation Agency

No.	Project Name	Project Description	Project Justification
11	HARNEY/GENEVA AVENUE BUS RAPID TRANSIT Investment Type: Expand Cost ($ thousands): $315,000 Priority Score: 54	Develops Bus Rapid Transit along the Geneva Corridor. The project includes BRT facility development along Geneva and Harney Way, supporting the Candlestick Point/Hunters Point Shipyard project and linking development to Caltrain, BART, and the T-Third line. Along the route, vehicle conflicts will be minimized through traffic control.	This project will reduce travel time and improve reliability along the corridor that links regional transit services, Priority Development Areas, and the Candlestick Point/Hunters Point Shipyard Development.
12	GENEVA AVENUE LIGHT RAIL TRANSIT EXTENSION Investment Type: Expand Cost ($ thousands): $450,000 Priority Score: 50	Entails extending light rail track 2.7 miles along Geneva Avenue from the Green Railyard to Bayshore Boulevard and then to the existing T-Third terminus at Sunnydale Station. Operations would occur at-grade with station locations to be determined.	This project would provide for the operational flexibility needed to meet long-term rail service needs.
13	PARKMERCED DEVELOPMENT M-LINE REALIGNMENT Investment Type: Enhance Cost ($ thousands): $70,000 Priority Score: 49	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 Seperation 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.

Draft Capital Plan Project Summaries

Capital Program: ***Transit Optimization & Expansion***
Total Program Cost (000s): ***$5,389,320***

SFMTA Municipal Transportation Agency

No.	Project Name	Project Description	Project Justification
14	WATERFRONT TRANSIT IMPROVEMENTS (Program) Investment Type: Enhance Cost ($ thousands): $20,000 Priority Score: 48	The Waterfront Transportation Assessment is identifying transportation improvements needed to accommodate planned growth in the area between Fort Mason and Islais Creek Channel. Specific improvements will be identified in Phase 2 of the Assessment. Improvements will aim at increasing capacity, passenger safety and convenience, and operational efficiencies, such as a 20th Street Transit Hub, a 58-24th Street transit terminal on Pier 70, and Muni Metro Extension (MMX) signal and track improvements.	Transit infrastructure needs to be substantially enhanced to accommodate planned growth and address current deificiencies. In addition, visitor travel may increase substantially with the recent opening of the Exploratorium, and with the proposed Warriors Arena on Piers 30-32 and retail development at Mission Rock (Seawall Lot 337) and Pier 70.
15	CANDLESTICK POINT/HUNTERS POINT SHIPYARD DEVELOPMENT (Program) Investment Type: Enhance Cost ($ thousands): $108,000 Priority Score: 44	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.

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No.	Project Name	Project Description	Project Justification
16	TREASURE ISLAND INTERMODAL STATION Investment Type: Expand Cost ($ thousands): $25,000 Priority Score: 43	The Intermodal Transit Hub will provide a central location for multiple transit services, ticket sales, bicycle and pedestrian information, and tourist information. The SFMTA 108-Treasure Island line, along with other transportation services such as East Bay service, shuttle service stops, bicycle parking, car-sharing pods, and administration / office accommodation for the Island's Travel Coordinator will be located at the Intermodal Transit Hub.	Increases the use of sustainable transportation modes, consistent with the development's transportation goals.
17	AUTOMATIC FARE COLLECTION – PHASE 2 (Program) Investment Type: Enhance Cost ($ thousands): $32,000 Priority Score: 41	Installs Ticket Vending Machines (TVMs) and off-board fare collection mechanisms along Rapid Network routes throughout the Muni System.	Providing off-board fare collection mechanisms along Muni's Rapid Network will increase reliability for up 1/2 of Muni's riders by reducing dwell time associated with paying cash fares on board the vehicles. TVMs also provide for clear communication of SFMTA fare structure and policies.
18	E-LINE NORTHERN TERMINAL AND FORT MASON EXTENSION Investment Type: Expand Cost ($ thousands): $61,500 Priority Score: 35	Consists of two seperate 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.

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SFMTA Municipal Transportation Agency

No.	Project Name	Project Description	Project Justification
19	THIRD STREET SOUTHERN INTERMODAL TERMINAL Investment Type: Expand Cost ($ thousands): $50,320 Priority Score: 26	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.