

## Fleet Program

All Amounts in Escalated \$000s

Project total includes funds/cost prior to FY2006

### Automatic Passenger Counting System

Enhancement/Expansion

Procure and install on-board automatic passenger counting (APC) equipment on Muni's revenue fleet, exclusive of historic rail and cable cars. APC equipment counts on- and off-loading passengers, and logs the data to an on-board computer. A companion system would transmit the logged data on demand to wayside servers for processing. The project includes acquisition of a database application program to process the APC data.

Fund Source	Allocated	Program	Planned	Total
Federal	\$0	\$0	\$0	\$0
Local	\$0	\$0	\$100	\$100
Project Funds	\$0	\$0	\$100	\$100
Project Cost				\$8,644
Surplus (Shortfall)				(\$8,544)

### Breda Safety Modifications

State of Good Repair

A group of projects to improve the Breda Light Rail Vehicle, including: Auto Drop Pantograph, Crew Door Control Switch, Emergency Door Release, Interlock Step Cutout/Door, Lighting Ballasts Replace, Master Controller Mod, Onboard Event Recorder, and Sensitive Edge Body Seals.

Fund Source	Allocated	Program	Planned	Total
Federal	\$0	\$0	\$13,495	\$13,495
Local	\$0	\$0	\$3,374	\$3,374
Project Funds	\$0	\$0	\$16,869	\$16,869
Project Cost				\$16,869
Surplus (Shortfall)				\$0

### Cable Car Vehicle Renovation Program

State of Good Repair

Provides for the phased overhaul and reconstruction of the cable car fleet to maintain system reliability and productivity. Currently each car is unique and parts must be fabricated for each individual car. One goal of the renovation program is to start to standardize major vehicle components. Minor overhauls are scheduled every 15 years, major overhauls at 30-35 years and reconstruction at 60-70 years. At any one time, a total of four cars may be

Fund Source	Allocated	Program	Planned	Total
Federal	\$7,516	\$0	\$20,640	\$28,156
State	\$125	\$0	\$0	\$125
Local	\$1,610	\$0	\$5,168	\$6,778
Project Funds	\$9,251	\$0	\$25,807	\$35,058
Project Cost				\$39,852
Surplus (Shortfall)				(\$4,793)

### Digital Voice Annunciation System (DVAS) Vehicle Retrofit

State of Good Repair

Will allow all ADA-related announcements to be made automatically without driver intervention. At a minimum the announcements will include stops at transfer points, major destinations and lines, and destinations at stops served by multiple lines. The first phase will retrofit 12 articulated motor coaches and 60 articulated trolley coaches. Future phases include the retrofit of 151 LRV2/3s.

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Federal	\$1,389	\$0	\$0	\$1,389
Local	\$1	\$0	\$179	\$181
Project Funds	\$1,391	\$0	\$179	\$1,570
Project Cost				\$11,989
Surplus (Shortfall)				(\$10,419)

## **Fareboxes - Inductive Coin Sensors**

### *Enhancement/Expansion*

Purchase and install 1,400 Inductive Coin Sensors (ICS) to replace the Coin Size Sensors currently used in the farebox system. The new ICS validates coins by size, mass and metallic content, in contrast to the old optical sensor that relied upon LEDs for sizing based upon coin diameter. The existing coin module optical sensors have been discontinued. The new ICS has higher reliability and also sharply reduces maintenance costs.

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$513
Surplus (Shortfall)				(\$513)

## **Fareboxes - Replacement Program**

### *State of Good Repair*

Procure additional fareboxes for expansion vehicles used to provide for new services. Spares have been exhausted and additional fareboxes are needed to put new vehicles into service. In FY2003 Muni purchased 45 fareboxes to cover Historic LRV expansion needs. This project also provides for the replacement of the entire farebox fleet once it has reached the end of its useful life.

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Federal	\$0	\$0	\$24,848	\$24,848
Local	\$0	\$7,422	\$0	\$7,422
Project Funds	\$0	\$7,422	\$24,848	\$32,270
Project Cost				\$33,808
Surplus (Shortfall)				(\$1,538)

## **Fareboxes - Transfer/Fare Receipt Printers**

### *Enhancement/Expansion*

Purchase and install automatic on-board printing of time-stamped transfers and fare receipts. The printers will be stand-alone machines that take the place of operators' cutting transfers by hand. This system will help ensure that transfers are cut accurately, which could lead to higher fare revenue recovery.

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0

Fund Source	Allocated	Program	Planned	Total
Project Cost				\$2,163
Surplus (Shortfall)				(\$2,163)

## Historic Vehicle NJT PCCs

### *Enhancement/Expansion*

Purchase and rehabilitate 11 PCCs from New Jersey Transit for use on the F-line.

Fund Source	Allocated	Program	Planned	Total
Local	\$5,710	\$0	\$375	\$6,085
Project Funds	\$5,710	\$0	\$375	\$6,085
Project Cost				\$6,085
Surplus (Shortfall)				\$0

## Historic Vehicle Program

### *State of Good Repair*

Phased rehabilitation of the Historic Light Rail Vehicle fleet for operation on the F-Line. CPUC and ADA on 10 Milan cars; Milan enhancements including brake interlock system and backup master controller; CPUC and ADA on 6 vehicles, plus the major overhaul of 1 vehicle; rehab up to 12 existing vehicles to expand service; and farebox procurement for the historic fleet. These are in addition to the 27 vehicles now in revenue service.

Fund Source	Allocated	Program	Planned	Total
Federal	\$17,564	\$276	\$0	\$17,840
Local	\$8,087	\$2,547	\$0	\$10,634
Project Funds	\$25,651	\$2,823	\$0	\$28,474
Project Cost				\$19,868
Surplus (Shortfall)				\$8,606

## Historic Vehicle Rehabilitation

### *State of Good Repair*

Phased rehabilitation of the Historic Light Rail Vehicle fleet. Rehabilitations are scheduled to occur every 20 years. Historic vehicles currently operate on the F-Line between Castro and Fisherman's Wharf via the Ferry Building. The goal of this program is to retain a high state of reliability throughout the life of the vehicle and to smooth out maintenance demands on this fleet.

Fund Source	Allocated	Program	Planned	Total
Federal	\$0	\$0	\$88,292	\$88,292
Local	\$0	\$11,504	\$15,577	\$27,081
Project Funds	\$0	\$11,504	\$103,869	\$115,373
Project Cost				\$122,896
Surplus (Shortfall)				(\$7,523)

## Light Rail Vehicle - JKLMN Line Expansion

### *Enhancement/Expansion*

Purchase additional light rail vehicles to increase the level of service on the existing J-, K-, L-, M- and N-lines. The additional vehicles will be used to even out loads on the existing Metro lines. Delivery of the first 10 vehicles is planned for 2015.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$48,082
Surplus (Shortfall)				(\$48,082)

### Light Rail Vehicle - Overhaul Program

#### *Enhancement/Expansion*

Systematic overhaul of all light rail vehicles every five years including: HVAC, brakes, couplers, pantograph, propulsion, doors, carbody, seats and cab, as needed. The goal of this program is to retain a high state of reliability throughout the life of the vehicle and to smooth out maintenance demands on this fleet. The first round of overhauls should have been scheduled for FY2003, based on vehicle in service dates.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$286,867
Surplus (Shortfall)				(\$286,867)

### Light Rail Vehicle Procurement - 128 Replacement & 8 Expansion

#### *State of Good Repair*

Purchase 128 LRVs to replace the 128 Boeing-Vertol SLRVs and eight LRVs to be used for expansion service on the Muni Metro Turnback and Extension. The new LRVs will help to improve service reliability on the Metro system and reduce maintenance problems in the LRV fleet.

Fund Source	Allocated	Program	Planned	Total
Federal	\$329,188	\$0	\$0	\$329,188
State	\$57,399	\$0	\$0	\$57,399
Local	\$85,589	\$600	\$0	\$86,189
Project Funds	\$472,176	\$600	\$0	\$472,776
Project Cost				\$472,170
Surplus (Shortfall)				\$606

### Light Rail Vehicle Procurement - Replace 151 Breda Cars

#### *State of Good Repair*

Replacement of the 151 car Breda Light Rail Vehicle fleet at the end of its useful life. This represents the first year of a multi-year procurement project that extends beyond the 20-year CIP.

Fund Source	Allocated	Program	Planned	Total
Federal	\$0	\$0	\$75,000	\$75,000
Local	\$0	\$35,025	\$4,704	\$39,730
Project Funds	\$0	\$35,025	\$79,704	\$114,730
Project Cost				\$641,312
Surplus (Shortfall)				(\$526,582)

### Light Rail Vehicle Retrofit (Mod. 12)

#### *State of Good Repair*

Address specific elements of the Breda design to make the vehicles more reliable, improve safety, and meet legal requirements. Consists of two components: video surveillance equipment and brake monitoring and control device (EBALD). Breda Leaseback funds of \$10 million in this project are the local commitment in exchange for using Sect. 5307 funds in FY2003 for preventive maintenance.

Fund Source	Allocated	Program	Planned	Total
Federal	\$0	\$0	\$0	\$0
Local	\$12,274	\$0	\$0	\$12,274
Project Funds	\$12,274	\$0	\$0	\$12,274
Project Cost				\$12,274
Surplus (Shortfall)				\$0

### Motor Coach Clean Air Device Retrofit

#### *State of Good Repair*

CARB legislation adopted on Jan. 23, 2001, requires Muni to retrofit all diesel powered buses with low emission traps and convert to ultra-low sulfur diesel fuel by 2006. The implementation of these two elements will dramatically reduce the particulate matter (PM) exhaust emissions of Muni's diesel buses. The project uses a combination PM/NOx device on 375 motor coaches.

Fund Source	Allocated	Program	Planned	Total
Federal	\$6,813	\$0	(\$402)	\$6,411
State	\$534	\$0	\$0	\$534
Local	\$1,360	\$0	\$0	\$1,360
Project Funds	\$8,707	\$0	(\$402)	\$8,305
Project Cost				\$8,305
Surplus (Shortfall)				\$0

### Motor Coach Mid-life Rebuild Program

#### *Enhancement/Expansion*

Provide for mid-life rebuilds of every vehicle in the motor coach fleet including: engine rehab/replacement, transmissions, differentials, suspension systems, wheelchair lifts, passenger and driver seats, glass, and body repair and paint. This cost does not include: tires, tubes, oil, fluid or lubricant changes, wiper replacement, or bus cleaning.

Mid-life rebuilds are necessary to maintain adequate vehicle availability throughout its regular useful life.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$336,791
Surplus (Shortfall)				(\$336,791)

### Motor Coach Purchase 45 AC Transit Gilligs

#### *State of Good Repair*

Purchase 45 1993 Gillig motor coaches from AC Transit to replace 45 1988/89 New Flyers in Muni's fleet. Includes installation of Claire devices.

Fund Source	Allocated	Program	Planned	Total
Federal	\$365	\$0	\$0	\$365
Local	\$3,735	\$0	\$625	\$4,360

Fund Source	Allocated	Program	Planned	Total
Project Funds	\$4,100	\$0	\$625	\$4,725
Project Cost				\$4,350
Surplus (Shortfall)				\$375

### Motor Coach Rehabilitation - 12 Artics to Extend Life

#### State of Good Repair

Perform an end of useful life rehab on 12 New Flyer articulated motor coaches to extend useful life by seven years. Includes rehab or replacement of engines, differentials, axles, brakes, suspension, wheelchair lift, windows, body work, paint, and steering, air, electrical, heating and cooling systems. Also includes installation of low emission (PM/NOx) traps.

Fund Source	Allocated	Program	Planned	Total
Federal	\$3,125	\$0	\$0	\$3,125
Local	\$781	\$0	\$240	\$1,021
Project Funds	\$3,906	\$0	\$240	\$4,146
Project Cost				\$3,906
Surplus (Shortfall)				\$240

### Motor Coach Replacement Program - 30 Hybrid 30-foot

#### State of Good Repair

Phased replacement of Muni's fleet of motor coaches. Project will replace 30 30-foot 1990 Orions. Based on conclusions gained from the Alternative Fuels Demonstration Project it was determined that hybrid-electric technologies would best address Muni's short term fleet goals. This project will help Muni to meet the mandates of

Fund Source	Allocated	Program	Planned	Total
Federal	\$7,392	\$0	\$6,306	\$13,698
Local	\$0	\$15,500	\$1,577	\$17,077
Project Funds	\$7,392	\$15,500	\$7,883	\$30,775
Project Cost				\$30,775
Surplus (Shortfall)				\$0

### Motor Coach Replacement Program - 375 Diesel

#### State of Good Repair

Phased replacement of Muni's fleet of motor coaches beginning in FY99/00. 45 standard coaches from NABI and 135 standard coaches from Neoplan will replace all 180-1984 Flyer coaches. 100 articulated coaches from Neoplan will replace 100-1984 MAN articulated coaches. Muni will receive 71 standard coaches and 24 articulated coaches to allow for the retirement of a like number of 1988 and 1989 Flyers standard and articulated coaches. The remainder of the fleet will be replace through the 56-Hybrid (40') and 30-Hybrid (30') procurements.

Fund Source	Allocated	Program	Planned	Total
Federal	\$119,704	\$0	\$0	\$119,704
Local	\$47,427	\$516	\$0	\$47,942
Project Funds	\$167,131	\$516	\$0	\$167,646
Project Cost				\$167,656
Surplus (Shortfall)				(\$10)

## Motor Coach Replacement Program - 56 Hybrids 40-foot

### State of Good Repair

Phased replacement of Muni's fleet of motor coaches. A total of 56 coaches will be replaced, 51 40-foot 1988/1989 New Flyers and 5 30-foot 1990 Orions. Based on conclusions gained from the Alternative Fuels Demonstration Project it was determined that hybrid-electric technologies would best address Muni's short term fleet goals. This project will help Muni to meet the mandates of Proposition I.

Fund Source	Allocated	Program	Planned	Total
Federal	\$22,205	\$0	\$3,784	\$25,990
Local	\$24,580	\$70	\$946	\$25,596
Project Funds	\$46,785	\$70	\$4,731	\$51,586
Project Cost				\$51,586
Surplus (Shortfall)				\$0

## Motor Coach Replacement Program - Future Phases

### State of Good Repair

Provides for the phased replacement of the motor coach fleet when vehicles reach the end of their useful lives. The vehicles and the years in which they will be replaced are detailed in the Fleet Plan chapter of the FY2004 SRTP. The details and justification for this program are also provided in the Fleet Plan chapter of the FY2004 SRTP.

Fund Source	Allocated	Program	Planned	Total
Federal	\$0	\$0	\$534,449	\$534,449
Local	\$0	\$119,915	\$18,818	\$138,733
Project Funds	\$0	\$119,915	\$553,267	\$673,182
Project Cost				\$694,090
Surplus (Shortfall)				(\$20,908)

## Motor Coach Reserve Fleet - End of Life Rehab

### Enhancement/Expansion

Continue to maintain a viable reserve fleet by providing for an end of useful life rehabilitation on part of the motor coach fleet to allow these vehicles to function in a reserve capacity for up to 10 years. The reserve fleet is used to provide substitution service for fixed guideway services, meet training needs and for special services. A complete description is provided in the Fleet Plan chapter of the FY2004 SRTP.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$69,742
Surplus (Shortfall)				(\$69,742)

## Non Revenue Vehicle Replacement Program

### Enhancement/Expansion

Purchase and replace non revenue vehicles such as specialized maintenance vehicles, light and heavy duty trucks and sedans that are used system-wide. A backlog of replacement needs currently exists resulting in the need to maintain vehicles well beyond their useful life. In addition to this backlog a number of vehicles were added to the program through the 2000 and 2002 Call for Capital Projects.

Fund Source	Allocated	Program	Planned	Total
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Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$81,067
Surplus (Shortfall)				(\$81,067)

## Paratransit Van Automatic Vehicle Locator System

### *Enhancement/Expansion*

Purchase and install AVL equipment in paratransit vans and link the associated data stream to the Mobility Master software at the Paratransit Broker's office. The AVL system will be used to increase the monitoring of paratransit vans, enhance communications between dispatchers and drivers, improve the customer reliability response to "where's my ride" phone calls, and to generate more accurate on-time performance reports.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$284
Surplus (Shortfall)				(\$284)

## Paratransit Vans 2004

### *State of Good Repair*

Purchase 20 van conversions for the paratransit program. Van conversions are large-sized vans, designed to carry 1-2 wheelchairs and 12 seated passengers. The vans will be used in the Paratransit Lift Van/ADA Access shared ride program where multiple customers can share trips. The vans are scheduled to be in service by the end of 2005.

Muni anticipates recovering the full cost of the vehicles in lower per trip operating costs that will be bid by the van providers who will no longer need to provide their own vehicles for the provision of these services. The recovered cost could partially offset growth in the program.

Fund Source	Allocated	Program	Planned	Total
Federal	\$580	\$0	\$624	\$1,203
Local	\$85	\$419	\$0	\$503
Project Funds	\$664	\$419	\$624	\$1,707
Project Cost				\$1,996
Surplus (Shortfall)				(\$290)

## Paratransit Vans 2006

### *State of Good Repair*

Purchase 34 van conversions for the paratransit program. Van conversions are large-sized vans that are designed to carry 1-2 wheelchairs and 12 seated passengers. The vans will be used in the Paratransit Lift Van/ADA Access shared ride program where multiple customers can share trips. The vans are scheduled to be in service by the end of 2007. Muni anticipates recovering the full cost of the vehicles in lower per trip operating costs that will be bid by the van providers who will no longer need to provide their own vehicles for the provision of these services. That recovered cost could partially offset growth in the program.

Fund Source	Allocated	Program	Planned	Total
Federal	\$0	\$0	\$1,497	\$1,497
Local	\$0	\$200	\$214	\$415



Fund Source	Allocated	Program	Planned	Total
Project Funds	\$0	\$200	\$1,711	\$1,911
Project Cost				\$1,911
Surplus (Shortfall)				\$0

## Paratransit Vans Future Procurements

### *State of Good Repair*

Phased replacement of the Paratransit Van fleet.

Fund Source	Allocated	Program	Planned	Total
Federal	\$0	\$0	\$14,039	\$14,039
Local	\$0	\$4,118	\$1,021	\$5,139
Project Funds	\$0	\$4,118	\$15,060	\$19,178
Project Cost				\$20,886
Surplus (Shortfall)				(\$1,708)

## Paratransit Vans/Debit Cards

### *State of Good Repair*

Purchase accessible vans to be used by local taxi service providers as part of the ramp taxi program. Muni will be expanding this fleet to 54 accessible minivans and replacing vehicles on a four-year cycle. Additional vans will help meet the growing demand for paratransit trips. These vehicles constitute only a portion of the vehicles used to provide paratransit service, the majority are under contract to Muni through its paratransit broker and multiple service providers. Also includes the procurement of a debit card system to replace taxi scrip.

Fund Source	Allocated	Program	Planned	Total
Federal	\$5,509	\$0	\$0	\$5,509
Local	\$1,149	\$245	\$0	\$1,395
Project Funds	\$6,658	\$245	\$0	\$6,903
Project Cost				\$6,899
Surplus (Shortfall)				\$5

## Trolley Coach Mid-life Rebuild Program

### *Enhancement/Expansion*

Provide for mid-life rebuilds of every vehicle in the trolley coach fleet. Mid-life rebuilds are necessary to maintain adequate vehicle availability throughout a fleets' regular useful life. The details of this program are described in the Fleet Plan chapter of the FY2004 SRTP.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$123,387
Surplus (Shortfall)				(\$123,387)

## Trolley Coach Rebuild 60 Articulated New Flyers

### *State of Good Repair*

This project includes a number of components to overhaul the 60-New Flyer Articulated Trolley Coaches. 1) Frames, 2) Kiepe Retriever, 3) Inverter Replacement, 4) battery management, and 5) minor overhaul of major components.

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Federal	\$0	\$0	\$1,156	\$1,156
Local	\$0	\$4,500	(\$1,156)	\$3,344
Project Funds	\$0	\$4,500	\$0	\$4,500
Project Cost				\$7,831
Surplus (Shortfall)				(\$3,331)

## **Trolley Coach Replacement - 33 Articulated & 240 Standards**

### *State of Good Repair*

Replace the fleet of 295 Flyer standard trolley coaches with 33 articulated and 240 standard coaches. Replacement of a number of standard coaches with articulated coaches is needed to better meet heavy ridership demand on the 49-Van Ness/Mission, 30-Stockton, 45-Union/Stockton, 5-Fulton, and 22-Fillmore lines. The new trolley coaches will all have accessibility features, including wheelchair lifts, kneeling capability and ADA compliant signage.

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Federal	\$187,477	\$0	\$0	\$187,477
State	\$11,136	\$0	\$0	\$11,136
Local	\$35,727	\$479	(\$235)	\$35,971
Project Funds	\$234,340	\$479	(\$235)	\$234,584
Project Cost				\$235,780
Surplus (Shortfall)				(\$1,196)

## **Trolley Coach Replacement - Future Phases**

### *State of Good Repair*

Phased replacement of the trolley coach fleet when vehicles reach the end of their useful lives. The details and justification for this program are provided in the Fleet Plan chapter of the FY2004 SRTP. Additional vehicles that may be required as a result of route conversion or extensions are included in the Route Electrification Program.

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Federal	\$0	\$0	\$251,939	\$251,939
Local	\$0	\$75,754	\$9,397	\$85,152
Project Funds	\$0	\$75,754	\$261,337	\$337,091
Project Cost				\$425,760
Surplus (Shortfall)				(\$88,669)

# Infrastructure Program

All Amounts in Escalated \$000s

Project total includes funds/cost prior to FY2006

## Accessible Lift Replacement with Ramps (5 locations)

*State of Good Repair*

Replace the four wayside lifts on Market Street and the wayside lift at San Jose and Geneva with wayside platforms.

Replacing the lifts with platforms will improve access to the Metro system for wheelchair users and reduce operational impacts on the system. Lifts are generally unreliable because they are subject to breakdowns.

Passengers requiring the lift must operate a gate to access it, and may not be visible to operators once situated

Fund Source	Allocated	Program	Planned	Total
Federal	\$0	\$0	\$2,834	\$2,834
Local	\$0	\$0	\$368	\$368
Project Funds	\$0	\$0	\$3,202	\$3,202
Project Cost				\$3,202
Surplus (Shortfall)				\$0

## Automatic Vehicle Location System - Integration with GPS & Radio Systems

*State of Good Repair*

Continue implementation of a Global Positioning System (GPS)-based Automatic Vehicle Location (AVL) system for Muni's revenue fleet and inspector vehicles to track schedule adherence, expedite response to emergencies and road call requests, and collect passenger data. To date, all LRV, historic streetcars, cable cars and trolley coaches have been equipped. Remaining phases include equipping all motor coaches and installing up to 400 bus shelter signs.

Fund Source	Allocated	Program	Planned	Total
Federal	\$1,987	\$2,508	\$0	\$4,495
Local	\$2,525	\$0	\$9,566	\$12,091
Project Funds	\$4,512	\$2,508	\$9,566	\$16,586
Project Cost				\$14,078
Surplus (Shortfall)				\$2,508

## Automatic Vehicle Location System Enhancements

*Enhancement/Expansion*

Enhancements to the AVL/GPS project including: significantly expanding deployment of wayside passenger information signage and improving the arrival messages in the Metro Subway. This will make the project RM-2

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$8,948	\$8,948
Project Funds	\$0	\$0	\$8,948	\$8,948
Project Cost				\$8,948
Surplus (Shortfall)				\$0

## Bus Rapid Transit - Geary

*Enhancement/Expansion*

Design and implement a rail-ready BRT project on Geary Boulevard. Project includes planning, environmental, engineering, and construction; elements may include a dedicated lanes, better shelters, and information systems. A first phase project is TPS treatments on Geary east of Van Ness, including stop respacing, lane reconfiguration, bus

bulbs, and signal priority.

Fund Source	Allocated	Program	Planned	Total
Local	\$368	\$0	\$42,500	\$42,868
Project Funds	\$368	\$0	\$42,500	\$42,868
Project Cost				\$159,798
Surplus (Shortfall)				(\$116,930)

## Bus Rapid Transit - Van Ness

### Enhancement/Expansion

Design and implement a BRT project on Van Ness Avenue from Mission to North Point. Project includes planning, environmental, engineering, and construction and may be implemented in phases. Project would be limited to the roadway and will require coordination with DPW landscaping and resurfacing projects.

Fund Source	Allocated	Program	Planned	Total
Federal	\$134	\$0	\$0	\$134
Local	\$0	\$0	\$17,705	\$17,705
Project Funds	\$134	\$0	\$17,705	\$17,839
Project Cost				\$93,768
Surplus (Shortfall)				(\$75,929)

## Bus Rapid Transit Program

### Enhancement/Expansion

Design and implement BRT in San Francisco to improve service reliability, reduce travel time, and improve passenger comfort. BRT is rubber-tired vehicle operation configured to offer speeds, capacity, and comfort similar to rail transit through the use of exclusive travel lanes, limited stops, signal priority, low-floor transit vehicles, prepaid fare systems, and passenger information. Corridors identified for possible BRT development after Geary and Van Ness are Potrero Avenue, 19th Avenue, 16th Street, Folsom Street, and the Evans/Innes corridor to Hunters Point. The 2005-09 program also includes BRT marketing and materials.

Fund Source	Allocated	Program	Planned	Total
Federal	\$0	\$0	\$46,137	\$46,137
Local	\$0	\$12,800	\$0	\$12,800
Project Funds	\$0	\$12,800	\$46,137	\$58,937
Project Cost				\$354,773
Surplus (Shortfall)				(\$295,836)

## Cable Car Extension to Fisherman's Wharf

### Enhancement/Expansion

Construct an extension of the Powell/Mason cable car line to a new off-street terminal inside the Fisherman's Wharf area. Benefits include improved service for Fisherman's Wharf-bound passengers, enhanced passenger safety and improved traffic circulation. Project cost and schedule has yet to be determined.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$44,550
Surplus (Shortfall)				(\$44,550)

## Cable Car Infrastructure Rehabilitation Program FY1998-2009

### *State of Good Repair*

Includes various guideway and infrastructure repair and improvement projects on the Cable Car system. Covers all street components of the Cable Car system, such as pulleys, switches and turntables, exclusive of rail which is in the Rail Replacement Program. A detailed description of the Cable Car infrastructure is provided in the Cable Car System Capital Plan (1998). A detailed project listing is included in the Infrastructure Program chapter of the Short Range Transit Plan.

Fund Source	Allocated	Program	Planned	Total
Federal	\$16,663	\$0	\$30,000	\$46,663
Local	\$1,933	\$9,375	\$1,769	\$13,076
Project Funds	\$18,596	\$9,375	\$31,769	\$59,739
Project Cost				\$58,259
Surplus (Shortfall)				\$1,481

## Cable Car Infrastructure Rehabilitation Program FY2010-2019

### *State of Good Repair*

Includes various guideway and infrastructure repair and improvement projects on the Cable Car system. Covers all street components of the Cable Car system, such as pulleys, switches and turntables, exclusive of rail which is in the Rail Replacement Program. A detailed description of the Cable Car infrastructure is provided in the Cable Car System Capital Plan (1998).

Fund Source	Allocated	Program	Planned	Total
Federal	\$0	\$0	\$80,000	\$80,000
Local	\$0	\$10,000	\$0	\$10,000
Project Funds	\$0	\$10,000	\$80,000	\$90,000
Project Cost				\$100,000
Surplus (Shortfall)				(\$10,000)

## Cable Car Infrastructure Rehabilitation Program FY2020-2029

### *State of Good Repair*

Includes various guideway and infrastructure repair and improvement projects on the Cable Car system. Covers all street components of the Cable Car system, such as pulleys, switches and turntables, exclusive of rail which is in the Rail Replacement Program. A detailed description of the Cable Car infrastructure is provided in the Cable Car System Capital Plan (1998).

Fund Source	Allocated	Program	Planned	Total
Federal	\$0	\$0	\$40,000	\$40,000
Local	\$0	\$6,000	\$4,000	\$10,000
Project Funds	\$0	\$6,000	\$44,000	\$50,000
Project Cost				\$75,000
Surplus (Shortfall)				(\$25,000)

## Cable Car Radio

### *Enhancement/Expansion*

Procure and install fixed on-board radios for 40 cable cars + 4 spare sets, plus central control hardware and

maintenance equipment replacing the handheld radios which Cable Car Operators are issued today. The equipment would be voice-compatible and non-interfering with the existing Metrocom radio system, transmitting on one channel, using an existing licensed frequency.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$196
Surplus (Shortfall)				(\$196)

## Communications Connectivity & Passenger Information - Central to Subway

### *Enhancement/Expansion*

Provide multipurpose connectivity in the Metro subway and facilitate modernization of safety, security, and passenger information and control systems on platforms, in agent booths, and in signal relay rooms. Will enable utilization of unallocated capacity of the existing fiber-optic cables to establish high-speed connectivity with the Metro Subway. Add two large (60") displays in concourse areas. Large format displays enhance timely communication of system performance and arrival predictions to Muni patrons. Add a wired communications link to the facility at 30 Duboce.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$2,620	\$2,620
Project Funds	\$0	\$0	\$2,620	\$2,620
Project Cost				\$2,620
Surplus (Shortfall)				\$0

## Curb Ramp Remediation

### *State of Good Repair*

Repair or reconstruct curb ramps that are on the path of travel to Muni Key Stops and Stations and that FTA Assessments have identified as ADA noncompliant. Construct curb ramps near key stops/stations where needed to make path of travel ADA compliant. Over 80 curb ramps have been identified.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$300	\$300
Project Funds	\$0	\$0	\$300	\$300
Project Cost				\$300
Surplus (Shortfall)				\$0

## Escalator Rehabilitation

### *State of Good Repair*

Escalators were constructed as part of the BART/Muni Metro project completed in 1972. Based on an agreement between the city and BART, Muni is responsible for 28 of these escalators in 7 stations. This project will replace or rehabilitate each escalator to conform to current codes and incorporate modern safety features. The work should result in reduced maintenance costs and unit down time.

Fund Source	Allocated	Program	Planned	Total
Federal	\$0	\$0	\$12,000	\$12,000
Local	\$110	\$3,000	\$0	\$3,110
Project Funds	\$110	\$3,000	\$12,000	\$15,110
Project Cost				\$15,039

Fund Source	Allocated	Program	Planned	Total
Surplus (Shortfall)				\$71

## Historic Streetcar Extension to Fort Mason/The Presidio

### Enhancement/Expansion

A unique partnership of non-profit agencies, the National Park Service and Muni is exploring plans to extend the proposed E-line from Fisherman's Wharf through National Park Service lands in Aquatic Park and Fort Mason, using the historic railway tunnel between the foot of Van Ness Avenue and Fort Mason Center. From Fort Mason, further extension of historic streetcar service to The Presidio is also under consideration.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$1,500	\$0	\$1,500
Project Funds	\$0	\$1,500	\$0	\$1,500
Project Cost				\$151,911
Surplus (Shortfall)				(\$150,411)

## Historic Streetcar Extension to Golden Gate Park

### Enhancement/Expansion

This project would provide a track extension from the vicinity of existing tracks at Irving Street and 9th Avenue northward into Golden Gate Park to a terminal in the vicinity of the Golden Gate Park Concourse. The project would allow for F-Line Historic Streetcar service along Market Street, on Duboce Avenue, N-Line tracks through the Sunset Tunnel to Irving Street, and proposed tracks to the museums and music concourse area in Golden Gate Park.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$50,524
Surplus (Shortfall)				(\$50,524)

## Light Rail Transit Line - Chinatown/North Beach Extension

### Enhancement/Expansion

Muni envisions extending the Central Subway further north from the planned terminal at Stockton/Clay in Chinatown, through North Beach and into Fisherman's Wharf. It could come to the surface and extend into the Marina on a surface alignment via Lombard or Chestnut, with a terminal at the Presidio. The subway could be built to accommodate trolley coaches as well as light rail.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$1,122,30
Surplus (Shortfall)				(\$1,122,30)

## Light Rail Transit Line - Geary

### Enhancement/Expansion

Construct a surface/subway LRT line to replace the 38-Geary lines. Geary is in the Four Corridors Plan and is next in priority for major investment after the Central Subway. Light rail service on Geary would increase reliability by ensuring that auto traffic would not impede transit vehicles, capacity would increase, travel time would decrease, and

quality of service for riders would improve.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$55,000	\$55,000
Project Funds	\$0	\$0	\$55,000	\$55,000
Project Cost				\$2,783,77
Surplus (Shortfall)				(\$2,728,77

### Light Rail Transit Line - Geneva/Ocean

#### Enhancement/Expansion

Extend service in this corridor using an exclusive ROW. The K-line would continue to operate on Ocean and an extension of the Third Street LRT would operate on Geneva with a terminal at Balboa Park BART or Phelan Loop.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$0
Surplus (Shortfall)				\$0

### Light Rail Transit Line - Van Ness Corridor

#### Enhancement/Expansion

Muni's vision is to have surface LRT in semi-exclusive ROW on Van Ness, one of the Four Corridors. However, there are substantial operating questions of how this line would fit into the existing route network and how it would connect with other lines and maintenance facilities.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$2,233,03
Surplus (Shortfall)				(\$2,233,03

### Maintenance Yards Wireless Networking

#### Enhancement/Expansion

Install high-speed wireless networking access points at vehicle yards, using the 802.11A standard. The network will make possible remote data collection, diagnostics and communications from devices installed on vehicles or portable devices in yards.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$108
Surplus (Shortfall)				(\$108)

### Metro Accessibility - Beyond Key Stops

#### Enhancement/Expansion

Includes two projects from the 2001 call for projects; Metro Rail Accessibility Lawsuit Mitigation and Metro Access Beyond Key Stops.

Fund Source	Allocated	Program	Planned	Total
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Fund Source	Allocated	Program	Planned	Total
Federal	\$0	\$0	\$10,260	\$10,260
Project Funds	\$0	\$0	\$10,260	\$10,260
Project Cost				\$12,432
Surplus (Shortfall)				(\$2,171)

## Metro Accessibility Program

### *State of Good Repair*

Provide accessibility improvements on the Metro system and key station compliance with the ADA. The program also provides for the development and installation of safety and security improvements to aid disabled Muni riders, and will support minor accessibility improvements to the LRV fleet. Future phases of the program will provide additional accessibility improvements beyond those required by the ADA.

Fund Source	Allocated	Program	Planned	Total
Federal	\$10,044	\$0	\$0	\$10,044
State	\$2,507	\$0	\$0	\$2,507
Local	\$4,182	\$0	\$0	\$4,182
Project Funds	\$16,732	\$0	\$0	\$16,732
Project Cost				\$20,292
Surplus (Shortfall)				(\$3,560)

## M-Line New Stub Terminal at Balboa Park BART

### *Enhancement/Expansion*

Construct a surface two-track stub terminal at Balboa Park in or adjacent to the current BART "kiss-ride" roadway. Provides a shorter path for patrons between BART and other Balboa Park facilities. Provides direct access to the stairway south of Geneva Avenue leading to the BART mezzanine. Improves safety and travel time for passengers and modest running time savings for Muni.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$14,038
Surplus (Shortfall)				(\$14,038)

## MMX Terminal Improvements

### *Enhancement/Expansion*

Enhance Muni streetcar operation along the MMX corridor through construction of additional terminal tracks and loop in the vicinity of 6th & Berry Streets needed for the proposed E-Line HLRV service. The proposed terminal improvements will smooth out service during peak operations and provide service to the waterfront area with any streetcar in the fleet. Currently, only double-ended streetcars can be used on the MMX tracks. Earthjustice

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$5,732
Surplus (Shortfall)				(\$5,732)

## Motive Power Maintenance Telephone System Replacement

### State of Good Repair

The project replaces all 21 hand set phones in substations and console equipment at Motive Power Control Center. The present system is over 25 years old. No replacement parts are available and hand set phones are obsolete and cannot be purchased. The present system works only marginally; the alternative of hand held radio communications as a workaround is unreliable and inefficient.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$9	\$9
Project Funds	\$0	\$0	\$9	\$9
Project Cost				\$9
Surplus (Shortfall)				\$0

## Operator Restrooms

### State of Good Repair

Continue the construction of Muni-only restroom facilities at transit terminals to provide Muni operators with restroom facilities available 24-hours a day. An initial study identified 20 key sites based on the number of terminal stops in a 24-hour period and the presence of adequate restrooms at opposite terminals. Additional locations will be identified in the future.

Fund Source	Allocated	Program	Planned	Total
Local	\$2,405	\$0	\$0	\$2,405
Project Funds	\$2,405	\$0	\$0	\$2,405
Project Cost				\$4,137
Surplus (Shortfall)				(\$1,732)

## Overhead Rehabilitation Program 1998-2009

### State of Good Repair

Phased design and replacement of the overhead wires and related poles and traction power systems serving the light rail and trolley coach lines. The projects included in this program are designed to reduce operational problems, reduce maintenance and increase system reliability. A detailed project listing is included in the Infrastructure Program chapter of the Short Range Transit Plan.

Fund Source	Allocated	Program	Planned	Total
Federal	\$49,922	\$0	\$46,500	\$96,422
State	\$0	\$0	\$0	\$0
Local	\$10,383	\$10,485	\$3,000	\$23,868
Project Funds	\$60,304	\$10,485	\$49,500	\$120,289
Project Cost				\$97,191
Surplus (Shortfall)				\$23,098

## Overhead Rehabilitation Program 2010-2019

### State of Good Repair

Phased design and replacement of the overhead wires and related traction power systems serving the light rail and trolley coach lines. The projects included in this program are designed to reduce operational problems, reduce maintenance and increase system reliability.

Fund Source	Allocated	Program	Planned	Total
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Fund Source	Allocated	Program	Planned	Total
Federal	\$0	\$0	\$80,000	\$80,000
Local	\$0	\$20,000	\$0	\$20,000
Project Funds	\$0	\$20,000	\$80,000	\$100,000
Project Cost				\$100,000
Surplus (Shortfall)				\$0

## Overhead Rehabilitation Program 2020-2029

### *State of Good Repair*

Phased design and replacement of the overhead wires and related traction power systems serving the light rail and trolley coach lines. The projects included in this program are designed to reduce operational problems, reduce maintenance and increase system reliability.

Fund Source	Allocated	Program	Planned	Total
Federal	\$0	\$0	\$40,000	\$40,000
Local	\$0	\$10,000	\$0	\$10,000
Project Funds	\$0	\$10,000	\$40,000	\$50,000
Project Cost				\$75,000
Surplus (Shortfall)				(\$25,000)

## Radio Communication System & Computer Aided Dispatch Replacement

### *State of Good Repair*

Replace the Radio Voice/Data Communications and Computer Aided Dispatch (CAD) systems. The existing radio system has limited message capacity, inability to add new features or support data communications, and no longer meets Muni's needs. The system is also obsolete: the FCC requires that Muni migrate to a newer narrower-band radio system before 2013. The CAD system at Central Control manages radio communications traffic, and includes silent alarm tracking, logging of dispatch and event transactions and report generation.

Fund Source	Allocated	Program	Planned	Total
Federal	\$5,314	\$744	\$61,600	\$67,658
Local	\$151	\$72,322	(\$57,107)	\$15,366
Project Funds	\$5,466	\$73,066	\$4,493	\$83,024
Project Cost				\$83,787
Surplus (Shortfall)				(\$763)

## Rail Replacement Program FY1998-2009

### *State of Good Repair*

Phased design and replacement of the trackway and related systems serving the light rail and cable car lines as part of a regular replacement program and to mitigate excessive noise and/or vibration. The program seeks to enhance system reliability, while reducing the need for excess maintenance. Also includes a small number of subway rehabilitation projects. A detailed project listing is included in the Infrastructure Program chapter of the Short Range

Fund Source	Allocated	Program	Planned	Total
Federal	\$70,242	\$0	\$41,875	\$112,117
State	\$7,500	\$0	\$0	\$7,500
Local	\$17,146	\$8,556	\$3,000	\$28,702
Project Funds	\$94,889	\$8,556	\$44,875	\$148,319

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Project Cost				\$120,179
Surplus (Shortfall)				\$28,140

### **Rail Replacement Program FY2010-2019**

#### *State of Good Repair*

Phased design and replacement of the trackway and related systems serving the light rail and cable car lines as part of a regular maintenance program. The program seeks to enhance system reliability, while reducing the need for excess maintenance.

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Federal	\$0	\$0	\$80,000	\$80,000
Local	\$0	\$20,000	\$0	\$20,000
Project Funds	\$0	\$20,000	\$80,000	\$100,000
Project Cost				\$100,000
Surplus (Shortfall)				\$0

### **Rail Replacement Program FY2020-2029**

#### *State of Good Repair*

Phased design and replacement of the trackway and related systems serving the light rail and cable car lines as part of a regular maintenance program. The program seeks to enhance system reliability, while reducing the need for excess maintenance.

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Federal	\$0	\$0	\$40,000	\$40,000
Local	\$0	\$10,000	\$0	\$10,000
Project Funds	\$0	\$10,000	\$40,000	\$50,000
Project Cost				\$75,000
Surplus (Shortfall)				(\$25,000)

### **Route Electrification Program**

#### *Enhancement/Expansion*

Phased program of trolley coach extensions and motor coach conversions to trolley coach operation. Includes provisions for a new trolley coach facility if the size of the trolley coach fleet expands beyond its current number of vehicles. Also includes the procurement of vehicles for potential conversion projects.

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Federal	\$0	\$0	\$121,222	\$121,222
Local	\$0	\$4,500	\$7,800	\$12,300
Project Funds	\$0	\$4,500	\$129,022	\$133,522
Project Cost				\$958,142
Surplus (Shortfall)				(\$824,620)

### **Subway Blue-Light (Emergency) Phone System Replacement**

#### *State of Good Repair*

Replace the existing Muni Subway Emergency Telephone system with a new state-of-the-art emergency telephone system. The project would include replacement of all emergency telephone units at trackside and in control panels

located in each relay room. The subway emergency telephone system is the safety communication system for Muni.

The existing system is out-dated and spare parts are no longer available.

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Federal	\$0	\$0	\$3,274	\$3,274
Local	\$0	\$0	\$818	\$818
Project Funds	\$0	\$0	\$4,092	\$4,092
Project Cost				\$1,819
Surplus (Shortfall)				\$2,273

## **Subway Public Address System Replacement**

### *State of Good Repair*

Replace the 25 year old subway Public Address system, which interfaces to the Train Control System to make train arrival announcements. The scope of the installation covers Central Control, 9 subway stations, both mezzanine and platform levels and 15 station agent booths. All station agent booths would be equipped to make local announcements. System would be expandable to Central Subway. Includes uninterruptible power supply. Spare parts for the existing PA system are nearly impossible to obtain and technology improvements cannot be incorporated into

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Federal	\$0	\$0	\$7,787	\$7,787
Local	\$0	\$0	\$1,947	\$1,947
Project Funds	\$0	\$0	\$9,733	\$9,733
Project Cost				\$5,300
Surplus (Shortfall)				\$4,433

## **Subway Restroom Rehabilitation**

### *State of Good Repair*

Improve physical access for ADA compliance and to provide health and safety improvements for restrooms at the following Muni-only Metro stations: Van Ness, Church St., Castro St., Forest Hill and West Portal. Due to current security concerns, restrooms are currently closed to the public. ADA improvements would be required before restrooms could reopen.

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$1,066
Surplus (Shortfall)				(\$1,066)

## **Subway Seismic Retrofit Study**

### *State of Good Repair*

Fund a study of the Market Street Subway, Twin Peaks Tunnel, MMT and Sunset Tunnel to determine what seismic work is required. The Twin Peaks Tunnel opened for service in 1918 and the Sunset Tunnel in 1928. Specific retrofit projects identified by the study will be added at a later date. Based on a current CIP Cost Estimate (8/21/2002) the construction phase could be \$15 million.

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0

Fund Source	Allocated	Program	Planned	Total
Project Cost				\$585
Surplus (Shortfall)				(\$585)

### Subway Station Talking Signs

#### *Enhancement/Expansion*

Install "Talking Sign" infrared transmitters in Muni/BART shared stations and Muni-only stations. Some Talking Signs transmitters were installed at Powell Street as part of a pilot project in 1995. The project will provide a more complete Talking Signs system that will greatly improve Muni's accessibility to the blind and visually impaired.

Fund Source	Allocated	Program	Planned	Total
Federal	\$0	\$0	\$655	\$655
Project Funds	\$0	\$0	\$655	\$655
Project Cost				\$3,375
Surplus (Shortfall)				(\$2,720)

### Third Street Light Rail Transit Project Phase 1 - Initial Operating Segment (Track/Vehicles/MME)

#### *State of Good Repair*

The first phase of the project, the Initial Operating Segment (IOS), will include the construction of trackway, related facilities, and Metro East light rail maintenance facility, and the purchase of 15 LRVs, and 10 additional LRVs for expanded Mission Bay service. The line will extend from the end of the MMX at Fourth & King Streets, across the Fourth Street bridge, along Third Street to a terminus in the vicinity of the Bayshore Caltrain Station.

Fund Source	Allocated	Program	Planned	Total
Federal	\$94,935	\$0	\$25,070	\$120,005
State	\$126,000	\$0	\$0	\$126,000
Local	\$286,517	\$22,545	\$44,977	\$354,039
Project Funds	\$507,452	\$22,545	\$70,047	\$600,044
Project Cost				\$600,044
Surplus (Shortfall)				\$0

### Third Street Light Rail Transit Project Phase 1 - Mission Bay Loop

#### *State of Good Repair*

Construct a Third Street short line terminal loop in Mission Bay, near Third Street and 18th Street. The loop will allow for short line operation to serve anticipated heavy demand in the Mission Bay area.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$2,054	\$0	\$2,054
Project Funds	\$0	\$2,054	\$0	\$2,054
Project Cost				\$1,755
Surplus (Shortfall)				\$298

### Third Street Light Rail Transit Project Phase 1 - Ticket Vending Machines

#### *State of Good Repair*

Procure ticket vending machines to allow faster boarding at high volume stops by providing the option of paying before boarding on the Third Street IOS. The TVMs will also process TransLink cards. The procurement will be combined with procurement for the rest of the Muni Metro system, including TVMs for the 19th Avenue platforms on the M-line.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$3,060	\$0	\$3,060
Project Funds	\$0	\$3,060	\$0	\$3,060
Project Cost				\$3,060
Surplus (Shortfall)				\$0

### Third Street Light Rail Transit Project Phase 2 - Central Subway

#### *State of Good Repair*

Construct Phase 2 of the Third Street Corridor Project: New Central Subway to Chinatown. Extend the Third Street Light Rail line into a new subway generally in a north-south alignment under Third Street to Market, then under Geary to Stockton, and under Stockton to Clay Street. Includes procurement of four LRVs.

Fund Source	Allocated	Program	Planned	Total
Federal	\$10,333	\$9,920	\$834,121	\$854,374
State	\$5,000	\$9,000	\$0	\$14,000
Local	\$11,861	\$114,139	\$418,113	\$544,113
Project Funds	\$27,194	\$133,059	\$1,252,23	\$1,412,48
Project Cost				\$1,412,48
Surplus (Shortfall)				\$0

### Transit Preferential Streets - Bus Stop Improvements Phases 1-3

#### *Enhancement/Expansion*

Install bus stop improvements, such as bus bulbs and lengthened bus stops. Project will also design and construct passenger boarding islands, where feasible, throughout the Metro system at stops where passengers must now board and alight in the street. These projects are designed to reduce delays associated with entering and leaving vehicles at bus and Metro stops.

Fund Source	Allocated	Program	Planned	Total
Federal	\$1,045	\$0	\$0	\$1,045
State	\$0	\$0	\$0	\$0
Local	\$482	\$0	\$0	\$482
Project Funds	\$1,527	\$0	\$0	\$1,527
Project Cost				\$1,527
Surplus (Shortfall)				\$0

### Transit Preferential Streets - Priority Signal Systems - Mission & Geary

#### *Enhancement/Expansion*

Procure and install on-board and wayside priority signals on the 14-Mission and 38-Geary lines. Goals include increasing average operating speeds and reducing overall running time by reducing the amount of time spent waiting for traffic signals and the associated deceleration and acceleration. The project seeks to employ a single technology which can be used on all Muni modes. Future projects are included in the corridor related TPS programs.

Fund Source	Allocated	Program	Planned	Total
Federal	\$1,476	\$0	\$0	\$1,476
State	\$191	\$0	\$0	\$191
Local	\$965	\$0	\$52	\$1,017
Project Funds	\$2,632	\$0	\$52	\$2,684

Fund Source	Allocated	Program	Planned	Total
Project Cost				\$2,684
Surplus (Shortfall)				\$0

## Transit Preferential Streets Program

### *Enhancement/Expansion*

Design and implement a variety of low- to medium-cost treatments to speed transit vehicle flow. Elements include exclusive or semi-exclusive transit lanes, colored or textured surface treatments, signal timing or priority, bus bulbs, boarding islands, stop respacing and relocation, and replacing stop signs with signals. Corridors identified in the 2005-09 program are Market, 19th Avenue, Potrero, Outer Mission, Stockton, and Geneva; others may be added as necessary or as opportunities arise. The TPS Program also includes various spot improvements, POP demonstration, and the development of a TPS Master Plan.

Fund Source	Allocated	Program	Planned	Total
Federal	\$0	\$0	\$14,190	\$14,190
Local	\$0	\$0	\$766	\$766
Project Funds	\$0	\$0	\$14,956	\$14,956
Project Cost				\$118,651
Surplus (Shortfall)				(\$103,695)

## TransLink Demonstration Project

### *Enhancement/Expansion*

TransLink is a Bay Area regional fare payment system using smart card technology that will provide passengers with a single card that can be used on all Bay Area transit systems. It involves adding fare collection equipment in the Metro stations and stops and on all Muni vehicles. A demonstration project was conducted in 2002. The next steps include establishing the program's governing structure and defining participation by each transit agency.

Fund Source	Allocated	Program	Planned	Total
Federal	\$4,008	\$0	\$0	\$4,008
State	\$521	\$0	\$0	\$521
Local	\$212	\$0	\$0	\$212
Project Funds	\$4,741	\$0	\$0	\$4,741
Project Cost				\$4,741
Surplus (Shortfall)				\$0

## Wayside Fare Collection

### *State of Good Repair*

The Metro Subway fare collection system will be composed of five elements: 1) bi-modal faregates, 2) ticket vending machines (TVMs), 3) agent's booth control panel and display, 4) new TVMs on M-line platforms, and 5) new TVMs on Third Street platforms. The system will accept TransLink smartcards now being implemented. A separate phase will procure a Fare Revenue Integration and Reporting system to consolidate fare collection data from the new faregates, TransLink revenues, vehicle cash boxes, and other miscellaneous fare revenue sources (e.g: token sales).

Fund Source	Allocated	Program	Planned	Total
Federal	\$9,821	\$0	\$3,882	\$13,703
Local	\$48	\$573	\$2,805	\$3,426
Project Funds	\$9,869	\$573	\$6,687	\$17,129



<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Project Cost				\$17,129
Surplus (Shortfall)				\$0

### **Wayside/Central Train Control Systems**

#### *State of Good Repair*

This project includes the regular rehabilitation of subway data transmission systems, subway signal cutover, Van Ness power supply for the wayside/central train control systems, a secondary system for Yard Departure Test Device, signaling and electrifying Green Yard switches, and replacing train control and switching at St. Francis

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Federal	\$0	\$0	\$8,612	\$8,612
Local	\$0	\$1,423	\$0	\$1,423
Project Funds	\$0	\$1,423	\$8,612	\$10,035
Project Cost				\$10,765
Surplus (Shortfall)				(\$730)

## Facilities Program

*All Amounts in Escalated \$000s*

*Project total includes funds/cost prior to FY2006*

### ATCS Test & Repair Shop at Green

*Enhancement/Expansion*

The Green Center Electronics Shop is overcrowded to a point that will be unacceptable in 2 to 3 years. The ATCS project increased technicians, test equipment and spare parts at the Electronics Shop. Options include moving this function to a trailer or the mezzanine storage area. Would allow for more efficient use of the remaining shop space and the ability to build test stations and leave them assembled, saving considerable labor.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$109
Surplus (Shortfall)				(\$109)

### Burke Avenue Facility

*State of Good Repair*

Acquire a 103,000 square-foot warehouse at 1570 Burke Avenue for use as Muni's new Central Warehouse and Overhead Lines Facility. Warehouse functions will be moved from Pier 72 which Muni currently leases. The current Overhead Lines Facility at 1401 Bryant is required to be seismically strengthened by the City's unreinforced masonry building code. The Burke Avenue warehouse is twice the size of the Bryant Street Facility that was determined to be cost prohibitive to seismically retrofit.

Fund Source	Allocated	Program	Planned	Total
Federal	\$9,200	\$0	\$0	\$9,200
Local	\$1,525	\$3,506	\$0	\$5,031
Project Funds	\$10,725	\$3,506	\$0	\$14,231
Project Cost				\$14,231
Surplus (Shortfall)				\$0

### Cable Car Barn CCTV Improvement

*Enhancement/Expansion*

Purchase and install digital color cameras and security housing to replace older malfunctioning units and expand existing video coverage throughout the Cable Car Barn. Install 15 new cameras and replace the 4 existing cameras and VCR to increase overall security at this facility and protect Muni's assets, revenues and staff. Most of the existing CCTV cameras in this facility were installed over 15 years ago.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$102
Surplus (Shortfall)				(\$102)

### Cable Car Barn Facility Improvements

*Enhancement/Expansion*

This project would construct needed office space on the first floor mezzanine level for maintenance management and

support staff, as well as construct an emergency fire escape hatch from the welding shop.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$925
Surplus (Shortfall)				(\$925)

## Cable Car Museum Renovation

### *Enhancement/Expansion*

Provide improvements to the Cable Car Museum, located at the Cable Car Barn at 1201 Mason Street.

Improvements could encourage more visitors to the museum, increasing revenues Muni receives from the museum.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$11,249
Surplus (Shortfall)				(\$11,249)

## Central Control - Facility Replacement

### *Enhancement/Expansion*

Design and construction of a new central control facility. The current facility is undersized for its existing use, contributing to inefficiencies and limiting the function which can be accommodated. Expansion or relocation of the facility is needed to provide adequate space for existing function, and to accommodate expanded service for the Central Subway, BRT lines, and Historic Streetcars. Rigorous post-9/11 security requirements will have to be addressed. Current options include: 1) expansion of the existing site, 2) construction of a new facility at the existing site, or 3) relocation to the new Muni Headquarters.

Fund Source	Allocated	Program	Planned	Total
Federal	\$990	\$0	\$0	\$990
Local	\$250	\$173	\$0	\$423
Project Funds	\$1,240	\$173	\$0	\$1,413
Project Cost				\$18,513
Surplus (Shortfall)				(\$17,100)

## Facilities - Miscellaneous Projects

### *State of Good Repair*

This is a collection of small projects (under \$500K) funded solely with Facility Preservation and Improvement Program (FPIP) Proposition B funds. Projects with more the \$500K in FPIP funds or which use funding from other sources are included in the CIP as stand alone projects.

Fund Source	Allocated	Program	Planned	Total
Local	\$2,321	\$0	\$0	\$2,321
Project Funds	\$2,321	\$0	\$0	\$2,321
Project Cost				\$2,338
Surplus (Shortfall)				(\$17)

## Facility Lifecycle Plan

### *Enhancement/Expansion*

Provide a method for Muni to manage its facility rehabilitation and replacement requirements. Will be used as a tool for planning for alternate fuel facilities. The goal is to update the information developed in the Facility Preservation and Improvement Program (FPIP) and provide Muni with better information on long-term facility rehabilitation needs.

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Local	\$0	\$300	\$0	\$300
Project Funds	\$0	\$300	\$0	\$300
Project Cost				\$0
Surplus (Shortfall)				\$300

### **Facility Preservation/Improvement Program**

#### *State of Good Repair*

Includes a variety of improvements for Muni's existing operating, storage, maintenance and administration facilities. This program is intended to rectify problems of system deterioration and/or deferred rehabilitation. Includes protecting facilities from deterioration and correcting safety hazards. Future phases will address the regular rehabilitation of Muni facilities.

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Local	\$486	\$0	\$0	\$486
Project Funds	\$486	\$0	\$0	\$486
Project Cost				\$18,477
Surplus (Shortfall)				(\$17,991)

### **Facility Safety Improvements**

#### *State of Good Repair*

A series of facility safety improvement projects including: Eye Wash Station Improvements, Pigeon Abatement, Pit Drain Sump Systems, Pit Safety Net Improvements, Motive Power Emergency Lights, Potrero Storeroom Isolative Wall, Presidio Power Shutoff Switches, and Woods Vehicle Lift Replacement.

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Federal	\$0	\$0	\$1,000	\$1,000
Local	\$0	\$1,049	\$0	\$1,049
Project Funds	\$0	\$1,049	\$1,000	\$2,049
Project Cost				\$2,049
Surplus (Shortfall)				\$0

### **Fixed Facility Rehabilitation**

#### *State of Good Repair*

This program includes a number of projects to make specific modifications to facilities to accommodate new vehicles or functions. Facility rehabilitation and maintenance projects have been placed in the Facility Preservation/Improvement Program.

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Federal	\$21,121	\$0	\$0	\$21,121
State	\$425	\$0	\$0	\$425
Local	\$9,774	\$0	\$0	\$9,774
Project Funds	\$31,321	\$0	\$0	\$31,321

Fund Source	Allocated	Program	Planned	Total
Project Cost				\$34,390
Surplus (Shortfall)				(\$3,070)

## Flynn Facility Lift Modification

### *State of Good Repair*

The Neoplan articulated motor coaches require certain modifications to the Flynn maintenance facility including the installation of five new lifts, moving the overhead fluid and air hose reels to accommodate rear-engine vehicles, modification to the local exhaust scavenging system in each maintenance bay, and safe access to the bus roof for servicing of the heating system.

Fund Source	Allocated	Program	Planned	Total
Local	\$4,449	\$0	(\$199)	\$4,250
Project Funds	\$4,449	\$0	(\$199)	\$4,250
Project Cost				\$4,250
Surplus (Shortfall)				\$0

## Flynn Facility Ventilation System & Roof

### *State of Good Repair*

Replace the ventilation system at Flynn Maintenance Facility. The ventilation is under constant load to evacuate the exhaust fumes caused by the diesel vehicles. If the system fails the exhaust fumes could collect and cause health and safety problems for maintenance workers and operators at the facility. The roof portion of this project has been completed.

Fund Source	Allocated	Program	Planned	Total
Federal	\$0	\$0	\$2,782	\$2,782
Local	\$3,696	\$5,357	(\$1,000)	\$8,053
Project Funds	\$3,696	\$5,357	\$1,782	\$10,835
Project Cost				\$8,778
Surplus (Shortfall)				\$2,056

## Geneva Historic Car Enclosure

### *State of Good Repair*

Build a canopy over 4 to 8 tracks in the Geneva Yard to provide weather protection for the most vulnerable cars in Muni's historic rail fleet and minimize deterioration of the HLRV cars. For example, the Milan cars have canvas roofs which are easily damaged by exposure to rain and fog. Other historic vehicles are constructed of wood, which is also vulnerable to deterioration.

Fund Source	Allocated	Program	Planned	Total
Federal	\$2,500	\$0	\$0	\$2,500
Local	\$1,650	\$0	\$0	\$1,650
Project Funds	\$4,150	\$0	\$0	\$4,150
Project Cost				\$4,150
Surplus (Shortfall)				\$0

## Green - LRV Washer Replacement

### *State of Good Repair*

Replace the Light Rail Vehicle (LRV) washer at the Green Maintenance Facility. The current car washer was designed for the Boeing LRVs and the configuration of the brushes, wands and control arms do not fit the new Breda cars. As a result the Breda cars are not cleaned efficiently. The entire unit is over 25 years old and is no longer repairable nor can it be efficiently modified.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$1,825
Surplus (Shortfall)				(\$1,825)

## Green Electronics Shop Spray Cabinet and Oven

### *State of Good Repair*

Purchase and install a spray cabinet and drying oven in the Green Electronics Shop to wash and rinse electronics assemblies. The Electronics Shop receives a variety of electronic assemblies from all revenue vehicles. Many assemblies are large and cumbersome and they contain many delicate and intricate electronic assemblies that fail due to contamination. Cleaning is an important function of the test and repair operation.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$304	\$0	\$304
Project Funds	\$0	\$304	\$0	\$304
Project Cost				\$304
Surplus (Shortfall)				\$0

## Green Facility Door Replacement

### *Enhancement/Expansion*

Replace existing roll-up doors with doors that can accommodate the Breda fleet. Existing doors have been modified to provide a temporary fix. This project seeks to develop a more permanent solution.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$7,050
Surplus (Shortfall)				(\$7,050)

## Green Roof/HVAC Rehabilitation

### *State of Good Repair*

Rehabilitation or replacement of the roof and HVAC system at the Green Maintenance and Annex buildings. The roofs on these buildings are about 20 and 25 years old, respectively, and past the ends of their useful lives. The HVAC systems have never functioned correctly, and in recent years have further deteriorated as failures of the roof mounted equipment have occurred. This equipment is as old as the roofs, and needs either replacement or complete rehabilitation.

Fund Source	Allocated	Program	Planned	Total
Local	\$253	\$970	\$0	\$1,222
Project Funds	\$253	\$970	\$0	\$1,222
Project Cost				\$1,685
Surplus (Shortfall)				(\$463)

## Islais Creek Motor Coach Maintenance Facility

### *State of Good Repair*

Develop a new maintenance division to replace the Kirkland motor coach maintenance facility when it is vacated for redevelopment. The new facility will accommodate 165 standard motor coaches. The facility could also be modified to accommodate up to 200 standard coaches, if the need arises.

Fund Source	Allocated	Program	Planned	Total
Federal	\$23,653	\$5,016	\$8,000	\$36,669
Local	\$24,397	\$17,722	\$0	\$42,119
Project Funds	\$48,050	\$22,738	\$8,000	\$78,788
Project Cost				\$73,751
Surplus (Shortfall)				\$5,037

## One South Van Ness

### *Enhancement/Expansion*

#### NEED DESCRIPTION

Fund Source	Allocated	Program	Planned	Total
Federal	\$682	\$0	\$0	\$682
Local	\$119	\$0	\$0	\$119
Project Funds	\$801	\$0	\$0	\$801
Project Cost				\$10
Surplus (Shortfall)				\$791

## Parts Storage Improvements

### *Enhancement/Expansion*

Includes two projects to improve parts storage space at Muni facilities. Green LRV Maintenance - Increase storage capacity by installing additional pallet racks and shelving and extending the existing mezzanine with metal grating and shelving. Pier 72 Improvements - Construct a modular office, add pallet racks, and install telecommunication and computer lines.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$450
Surplus (Shortfall)				(\$450)

## Potrero Trolley Coach Division Rehabilitation

### *State of Good Repair*

The current phase of this project provides improvements to the paint & body facility, including relocating the tire shop. Prior phases included the rehabilitation of the deteriorated roof and parking deck structure to eliminate leaking conditions over interior work areas.

Fund Source	Allocated	Program	Planned	Total
Federal	\$3,008	\$0	\$0	\$3,008
Local	\$1,830	\$0	\$0	\$1,830
Project Funds	\$4,839	\$0	\$0	\$4,839

Fund Source	Allocated	Program	Planned	Total
Project Cost				\$9,233
Surplus (Shortfall)				(\$4,394)

## Potrero/Presidio - Trolley Coach Lifts

### *State of Good Repair*

Install lifts at the Potrero and Presidio Maintenance Facilities. The lifts will allow the ETI Trolley Coaches to be raised so that maintenance activities from under the vehicle, side compartment access and wheel free operations can be conducted in an efficient and ergonomically superior way. \$200,000 has been booked for CER, with the construction estimated at \$15M. An initial phase could be completed for \$2.5M if funding becomes an issue.

Fund Source	Allocated	Program	Planned	Total
Local	\$200	\$0	\$0	\$200
Project Funds	\$200	\$0	\$0	\$200
Project Cost				\$200
Surplus (Shortfall)				\$0

## Presidio CCTV Improvement

### *Enhancement/Expansion*

Purchase and install digital color cameras and security housing to replace 6 older malfunctioning units and expand existing video coverage with 19 new cameras throughout the Presidio facility. Also included in this project will be the equipment to store, digitally record and for live viewing of activity in the Security Office. This project will increase overall security at this facility to protect Muni's assets, revenue, staff and patrons. Project is being deferred pending redevelopment decision.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$110
Surplus (Shortfall)				(\$110)

## Presidio Fire Detection System

### *State of Good Repair*

Design and install a fire alarm and detection system at the Presidio Division. The fire alarm system at Presidio consists of two pull boxes which ring directly to the Fire Department. The fire detection systems consist of smoke detectors in tracks 16 and 17 and a halon system in room 203. The entire facility lacks an adequate and modern fire alarm and detection system. Project is being deferred pending redevelopment decision.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$2,854
Surplus (Shortfall)				(\$2,854)

## Presidio Maintenance Area Facility Modification

### *Enhancement/Expansion*

Improve the Presidio Maintenance Facility so that coach movement is not blocked and proper maintenance can be



performed. The ceiling clearance is just high enough to allow the new ETI Trolley Coaches to pass. However, coaches may have problems passing the "I" Beam Section in the ceiling. Pit areas must be trenched out. The facility needs step down trenches so that maintainers have access to side compartments without lying on the concrete.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$1,170
Surplus (Shortfall)				(\$1,170)

### Presidio Shop Door Electric Motors

#### *Enhancement/Expansion*

The existing shop roll-up doors were installed in 1990. Electric motors were not provided. Adding electric motors will provide for ease in opening and closing the roll-up doors.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$127
Surplus (Shortfall)				(\$127)

### Presidio Trolley Coach Division Rehabilitation

#### *State of Good Repair*

Short term rehabilitation needs include yard repaving and re-roofing. Long term, this facility may undergo reconstruction to increase capacity and to address structural and design problems. Joint development strategies may be used as part of the future funding package if a reconstruction project is pursued.

Fund Source	Allocated	Program	Planned	Total
Federal	\$64	\$0	\$0	\$64
Local	\$296	\$0	\$0	\$296
Project Funds	\$360	\$0	\$0	\$360
Project Cost				\$1,500
Surplus (Shortfall)				(\$1,139)

### Revenue Center Replacement

#### *State of Good Repair*

Construct a replacement facility for the Revenue Center, including new equipment. Proposals include: 1) building a new revenue center on property acquired near one of Muni's existing operating divisions, or 2) including a new revenue center in the expansion of the Metro East facility.

Fund Source	Allocated	Program	Planned	Total
Federal	\$338	\$0	\$0	\$338
Local	\$84	\$0	\$0	\$84
Project Funds	\$423	\$0	\$0	\$423
Project Cost				\$7,172
Surplus (Shortfall)				(\$6,749)

### Scott Center Parking Lot Land Purchase and Improvements

### *Enhancement/Expansion*

Purchase a small parking lot next to the Scott Non-Revenue Center at Harrison and Alameda Streets. Will provide a secure overnight parking area for large service trucks where there currently is none. Muni personnel could drop off vehicles for service or repairs during off hours. A fenced lot will give the towing vendor a place to park towed vehicles after hours. The lot will provide a place to both store and maintain vehicles with CNG fuel systems.

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Federal	\$0	\$0	\$1,073	\$1,073
Project Funds	\$0	\$0	\$1,073	\$1,073
Project Cost				\$1,212
Surplus (Shortfall)				(\$139)

### **Subway Fire Alarm & Detection Systems Replacement**

#### *State of Good Repair*

Replace the existing fire alarm and detection systems in the Muni-only subway stations (West Portal, Forest Hill, Castro, Church and Van Ness). The existing fire alarm and detection systems were designed and installed in 1972. Given the age of the systems it is often difficult to procure replacement components.

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Federal	\$0	\$0	\$3,158	\$3,158
Local	\$0	\$0	\$790	\$790
Project Funds	\$0	\$0	\$3,948	\$3,948
Project Cost				\$1,825
Surplus (Shortfall)				\$2,123

### **Subway Relay Room Electronic Security/Access**

#### *Enhancement/Expansion*

Procure and install electronic door security/access system for subway relay rooms. Current security/access of critical equipment rooms in subway is inadequate. Electronically controlled and monitored access will provide security and control of access to critical, safety-sensitive equipment.

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$324
Surplus (Shortfall)				(\$324)

### **Subway Station Improvements**

#### *Enhancement/Expansion*

Rehabilitation and improvement projects in Metro Subway stations. Current proposals include station cleaning and painting, and platform edge detection tile replacement.

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Federal	\$0	\$0	\$5,164	\$5,164
Local	\$0	\$0	\$671	\$671
Project Funds	\$0	\$0	\$5,836	\$5,836
Project Cost				\$5,836
Surplus (Shortfall)				\$0

## Training Center - Muni Wide

### *Enhancement/Expansion*

Develop a combined operations and maintenance training facility. Although all operators are first trained on motor coaches, the current training facility is several miles from any of Muni's motor coach divisions. Proposals include: 1) building a new training center on property acquired near one of Muni's existing motor coach divisions, or 2) including a new training center in the expansion of the Metro East facility.

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Federal	\$0	\$0	\$7,000	\$7,000
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$7,000	\$7,000
Project Cost				\$39,478
Surplus (Shortfall)				(\$32,478)

## Woods Motor Coach Division Renovation - Fuel, Wash & Lifts

### *State of Good Repair*

Replace underground fuel tanks and repave the bus parking yard. Includes replacement of piping and electrical systems, and rehabilitation of the fueling islands and bus wash. Additional phases include vehicle lift replacement and procurement and installation of a Transmission Dynamometer to diagnose motor coach transmission power and performance capability.

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Federal	\$17,321	\$0	\$2,000	\$19,321
Local	\$5,944	\$1,592	\$0	\$7,537
Project Funds	\$23,265	\$1,592	\$2,000	\$26,858
Project Cost				\$26,658
Surplus (Shortfall)				\$200

# Equipment Program

All Amounts in Escalated \$000s

Project total includes funds/cost prior to FY2006

## Data Processing & Office Equipment Program

Enhancement/Expansion

Replacement and purchase of data processing and office equipment necessary to support the management, administrative, planning, and engineering functions of Muni. A specific list of projects is included in the Miscellaneous Equipment Plan (2000).

Fund Source	Allocated	Program	Planned	Total
Federal	\$2,914	\$0	\$0	\$2,914
Local	\$888	\$0	\$0	\$888
Project Funds	\$3,802	\$0	\$0	\$3,802
Project Cost				\$4,798
Surplus (Shortfall)				(\$995)

## Data Processing & Office Equipment Program - Future Phases

Enhancement/Expansion

Replacement and purchase of data processing and office equipment necessary to support the management, administrative, planning, and engineering functions of Muni. A specific list of projects is included in the Miscellaneous Equipment Plan (2000).

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$61,749
Surplus (Shortfall)				(\$61,749)

## Driver Training Simulators 2-360 Degree Computer Based Graphic Training Stations

Enhancement/Expansion

The simulators resolve two problems: 1) Eliminate the use of needed revenue buses for training purposes and 2) Recreate many difficult operating situations that cannot be reproduced during road training. Simulators provide control over weather, equipment malfunctions, traffic behavior and other real-world hazards. Trainees practice judgment and reaction time safely. Conditions can be programmed to reproduce an avoidable accident for more

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$934
Surplus (Shortfall)				(\$934)

## Electronic Document Management

Enhancement/Expansion

Enable better storage, retrieval, and search capabilities for Muni's shared electronic documents. Provides for version and security controls. Utilizes document capture through scanning, indexing and storing document images to a back-end document management system from which they can be retrieved. Cost includes software, hardware, training, project management, plus some document scanning.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$379
Surplus (Shortfall)				(\$379)

## Enterprise Application Interface

### *Enhancement/Expansion*

To better utilize data captured by several new enterprise applications, a central applications interface is needed to coordinate information exchange among the individual applications. These applications include: Scheduling and Dispatch (Trapeze), Vehicle and Materials Management (SHOPS), Automated Vehicle Location (AVL by NextBus), TransitSafe, and Incident Log. The project would purchase hardware, software and contracting services.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$887
Surplus (Shortfall)				(\$887)

## Geographical Information System Enhancement

### *Enhancement/Expansion*

Provide a centralized and comprehensive Geographic Information System that could give employees and customers easy access to accurate maps of Muni's facilities and service areas and city demographics. Costs include additional data storage space, handheld devices, ruggedized laptops for field data collection, GIS software, software training, and consultant fees for scanning, georeferencing and geodatabase build.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$379
Surplus (Shortfall)				(\$379)

## MIS: Human Resources Management System

### *Enhancement/Expansion*

Facilitate greater autonomy to add, modify and analyze Muni's Human Resource (HR) data residing in the PeopleSoft database. It will also permit faster managerial reporting and decision-making that pertains to HR issues. This system replaces the PUC's obsolete BMIS system and integrates workers' compensation, benefits administration, employee information and adds a position control function.

Fund Source	Allocated	Program	Planned	Total
Federal	\$0	\$0	\$2,368	\$2,368
Project Funds	\$0	\$0	\$2,368	\$2,368
Project Cost				\$2,960
Surplus (Shortfall)				(\$592)

## MIS: Project Management Information System (PMIS) Replacement

### *Enhancement/Expansion*

Acquire a client-server or web-based project management software system to replace the current Access-based PMIS system. The new system provides better mathematical analysis tools, dynamic reporting functions, and graphing capabilities. The new PMIS system will also be integrated with the new Human Resource Management System and TESS payroll system to allow dynamic analysis and reporting.

Fund Source	Allocated	Program	Planned	Total
Federal	\$0	\$0	\$500	\$500
Project Funds	\$0	\$0	\$500	\$500
Project Cost				\$790
Surplus (Shortfall)				(\$290)

### **MIS: Revenue Reconciliation Database System**

#### *Enhancement/Expansion*

Replace the Revenue Reconciliation system with networked hardware and software compatible with Muni's enterprise environment. The existing system was developed in-house, and is vulnerable to breakdowns and security breaches. A new system will include security controls necessary to comply with standard accounting practices, an electronic interface to FAMIS, and a streamlined web portal interface for up-to-date reporting.

Fund Source	Allocated	Program	Planned	Total
Federal	\$0	\$0	\$1,747	\$1,747
Project Funds	\$0	\$0	\$1,747	\$1,747
Project Cost				\$1,974
Surplus (Shortfall)				(\$227)

### **MIS: Scheduling/Auto-Dispatch Systems Replacement**

#### *Enhancement/Expansion*

Acquire an integrated, client-server based scheduling and dispatch system that will replace the current scheduling system. The acquired system will have the ability to do schedule making, run cutting, rostering, sign-up, dispatch, and timekeeping functions. The current RUCUS scheduling software was developed and installed in the late 1970's and is no longer supported by a vendor. The system will also have traffic/ride check data collection capabilities.

Fund Source	Allocated	Program	Planned	Total
Local	\$4,200	\$0	\$0	\$4,200
Project Funds	\$4,200	\$0	\$0	\$4,200
Project Cost				\$4,200
Surplus (Shortfall)				\$0

### **Miscellaneous Equipment Program**

#### *State of Good Repair*

Ongoing acquisition and replacement of the equipment needed to support all aspects of Muni's operations, maintenance and administrative functions. A significant backlog of equipment needs exists due to the unavailability of capital resources for equipment replacement. A specific list of projects was included in the Miscellaneous Equipment Plan (2000). Also includes proposals from the recent Call for Capital Projects (FY2000 and FY2002).

Fund Source	Allocated	Program	Planned	Total
Federal	\$0	\$0	\$16,000	\$16,000
Project Funds	\$0	\$0	\$16,000	\$16,000
Project Cost				\$41,777

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Surplus (Shortfall)				(\$25,777)

## Miscellaneous Equipment Program - Phase 2

### *State of Good Repair*

Ongoing acquisition and replacement of the equipment needed to support all aspects of Muni's operations, maintenance and administrative functions. A specific list of projects is included in the Miscellaneous Equipment Plan (2000). Also includes projects from the FY2000 and FY2002 Call for Capital Projects.

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Federal	\$1,017	\$0	\$0	\$1,017
Local	\$316	\$0	\$0	\$316
Project Funds	\$1,334	\$0	\$0	\$1,334
Project Cost				\$1,334
Surplus (Shortfall)				\$0

## Motive Power SCADA System

### *State of Good Repair*

Replace the seven year old Transit Power Substation monitoring and control equipment located at the Power Control Center. Includes three HP workstations and a front end processor that interfaces with 29 remote terminal units. Will also provide a computer and communications link at Central Control to allow the display of the motive power system at this location.

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$108
Surplus (Shortfall)				(\$108)

## PBX Telephone System & Equipment Upgrades

### *State of Good Repair*

Purchase and install Private Business Exchange (PBX) telephone systems and fiber-optic communications links at Muni facilities to replace old Centrex equipment maintained by SBC, some of which is obsolete and no longer supported by the manufacturer. Repairs and changes on the Centrex systems could be done remotely by Muni/DTIS staff at a much lower cost by eliminating expensive service visits and reducing response time to problem reports.

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$551
Surplus (Shortfall)				(\$551)

## Proof of Payment Wireless Inspection System

### *Enhancement/Expansion*

Purchase and install a wireless solution for the Transit Security Department to enforce the Proof of Payment (POP) program while in the field. Purchase 25 hand-held units and IT infrastructure. Ongoing operating expenses include lease of wireless services (GPRS or other radio-based services).

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$379
Surplus (Shortfall)				(\$379)

### **Signal Vital Relay Test System**

#### *State of Good Repair*

Procure a computer-based tester for subway and surface signaling system relays. Current critical relay test method uses outdated and inadequate manual method and equipment. Vital relays are safety-critical devices, and are required to be tested at specific intervals. This test system provides for consistent, accurate and documented test and certification of safety-critical relays.

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$13
Surplus (Shortfall)				(\$13)

### **Training Fleet Hand Held Radios**

#### *Enhancement/Expansion*

Procure hand-held radios, spare batteries and chargers for 10 Diesel Training Coaches, and 2 spare sets. These hand held radios will be used for communications with Central Control.

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$19
Surplus (Shortfall)				(\$19)

### **Transit Signage Program**

#### *Enhancement/Expansion*

Provides basic informational signage for passengers at an additional 1000 stops, plus some inventory. The project will standardize signage throughout the Muni system. First phase would procure additional "Landor" style bus stop

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$351
Surplus (Shortfall)				(\$351)

### **Travel Modeling and Micro-Simulation Tools**

#### *Enhancement/Expansion*

Purchase and develop the tools and start acquiring the skills necessary for Muni to perform a limited number of travel demand modeling and traffic micro-simulation tasks in-house. This capability would help Muni respond to public concerns in a more efficient and rapid manner. By acquiring the appropriate software and developing the necessary skills, Muni will have the means to take the initial steps to perform many of these tasks in-house.



<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$87
Surplus (Shortfall)				(\$87)

### **Voice Data Recorder/Playback Replacement System for Central Control**

#### *State of Good Repair*

Install and provide ongoing support services for a new Digital Voice Data Recorder/Playback system for Muni's Central Control Radio Dispatch Center to record and archive all phone calls to the Central dispatcher. Archived data is required for incident investigations. The new system would provide a more reliable and efficient way to store and research recorded tapes using new state-of-the-art technology.

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$574
Surplus (Shortfall)				(\$574)

### **Voice Data Recorder/Playback Replacement System for Motive Power Control Center**

#### *State of Good Repair*

Purchase and install a digital communication recorder/monitor for the Power Control Center. The new unit will record and monitor all voice communication into or out of the Operational Desks of Power Control Center. This unit is needed to secure information regarding any operational procedures or incidents/events. CPUC and other regulatory agencies require that such records be maintained and available for review.

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$47
Surplus (Shortfall)				(\$47)

### **Worker's Comp Wireless Field Inspection System**

#### *Enhancement/Expansion*

Purchase and install a wireless solution for the field inspector to enforce timely data entry. This includes 30 hand-held pocket PCs, or equivalent, plus software and professional implementation services, and training. Would require a wireless data link provided by a third party telecom vendor. Improves efficiencies in keeping authoritative data, control of data and tracking with MTA, rather than an outside party.

<b>Fund Source</b>	<b>Allocated</b>	<b>Program</b>	<b>Planned</b>	<b>Total</b>
Local	\$0	\$0	\$0	\$0
Project Funds	\$0	\$0	\$0	\$0
Project Cost				\$324
Surplus (Shortfall)				(\$324)

## Other Projects Program

*All Amounts in Escalated \$000s*

*Project total includes funds/cost prior to FY2006*

### Balboa Park Station Area

*Enhancement/Expansion*

Conduct a conceptual engineering study of station area development projects identified in the Balboa Park Station Area Plan, prepared by the SF Planning Department. Products will include a feasibility analysis, cost estimates and phasing plan for the entire body of station area improvements. Two supporting studies will be needed: 1) Muni service planning study of bus and rail routes serving the station, and 2) operational and functional analysis of Muni maintenance and storage activities related to a decision on the future use of the Green Upper Yard site.

Fund Source	Allocated	Program	Planned	Total
Local	\$0	\$1,140	\$0	\$1,140
Project Funds	\$0	\$1,140	\$0	\$1,140
Project Cost				\$0
Surplus (Shortfall)				\$1,140

### Bayview Connections Station Area

*Enhancement/Expansion*

Improve vital pedestrian connections between transit and neighborhood retail, educational and cultural facilities in the center of Bayview Hunters Point. A 1998 Transportation for Livable Communities (TLC) planning grant was used to conduct a study and produce a conceptual design. A subsequent TLC grant of \$1.8 million is being used to complete the design and begin the construction of the first phase.

Fund Source	Allocated	Program	Planned	Total
Federal	\$3,546	\$0	\$0	\$3,546
Local	\$262	\$0	\$426	\$688
Project Funds	\$3,808	\$0	\$426	\$4,234
Project Cost				\$2,510
Surplus (Shortfall)				\$1,724

### Graffiti Prevention and Security Program

*State of Good Repair*

This program is currently in the planning phase to determine the specific scope, schedule and budget for its implementation. The program includes security cameras and security fencing at various facilities and wayside locations. Includes projects from the 2000 Call for Capital Projects. Program cost is based on the 2001 draft

Fund Source	Allocated	Program	Planned	Total
Federal	\$2,561	\$0	\$0	\$2,561
Local	\$428	\$0	\$0	\$428
Project Funds	\$2,988	\$0	\$0	\$2,988
Project Cost				\$4,427
Surplus (Shortfall)				(\$1,439)

### Preventive Maintenance

*State of Good Repair*

FTA Section 5307 funds used for preventive maintenance (PM) activities. In FY2003, \$10M will be used and in

exchange Muni agreed to fund a like amount from local sources that are restricted to capital use only. Due to the state of the economy, PM in the amounts of \$10M in FY2004, \$10M in FY2005, and \$8.2M in FY2006, may also be used. These actions will help mitigate projected shortfalls in the operating budget.

Fund Source	Allocated	Program	Planned	Total
Federal	\$39,016	\$0	\$16,991	\$56,007
Local	\$0	\$0	\$0	\$0
Project Funds	\$39,016	\$0	\$16,991	\$56,007
Project Cost				\$43,641
Surplus (Shortfall)				\$12,366

## Short Range Transit Plan

### *State of Good Repair*

Preparation of biennial updates to the Short Range Transit Plan, including the Capital Improvement Program. The SRTP is Muni's primary planning document, bringing together a number of plans and studies prepared to guide Muni's future direction. The CIP identifies and provides details of Muni's future capital investments.

Fund Source	Allocated	Program	Planned	Total
Federal	\$191	\$0	\$783	\$974
Local	\$37	\$0	\$101	\$138
Project Funds	\$228	\$0	\$884	\$1,112
Project Cost				\$1,159
Surplus (Shortfall)				(\$47)

## Transbay Terminal Replacement

### *Enhancement/Expansion*

In March 2003 the Transbay Joint Powers Authority chose the West Ramp Alternative for the terminal, the Second to Main Alternative for the Caltrain Extension, and the Full Build Alternative for the Redevelopment Plan as the LPA for the FEIR. Muni operates several lines to and from the terminal and has an interest in the outcome of the study.

Current City policy directs that a replacement facility be built on the current site.

Fund Source	Allocated	Program	Planned	Total
Federal	\$8,795	\$0	\$0	\$8,795
Local	\$22,390	\$0	\$0	\$22,390
Project Funds	\$31,185	\$0	\$0	\$31,185
Project Cost				\$26,606
Surplus (Shortfall)				\$4,579

## Treasure Island Ferry Terminal

### *Enhancement/Expansion*

Provides funds to the Treasure Island Development Authority for projects to provide ferry service to Treasure Island.

Fund Source	Allocated	Program	Planned	Total
Federal	\$879	\$0	\$1,245	\$2,124
Project Funds	\$879	\$0	\$1,245	\$2,124
Project Cost				\$2,124
Surplus (Shortfall)				\$0