

**Board Report**

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**FINANCE, BUDGET, & AUDIT COMMITTEE
MARCH 18, 2020****SUBJECT: FISCAL YEAR 2021 BUDGET DEVELOPMENT UPDATE - TRANSIT OPERATIONS,
MAINTENANCE, AND ASSET STATE OF GOOD REPAIR****ACTION: RECEIVE AND FILE****RECOMMENDATION**

RECEIVE AND FILE the Fiscal Year 2021 (FY21) Budget Development Update for Transit Operations, Maintenance, and Asset State of Good Repair (SGR).

ISSUE

This report is the third in a series of budget development updates leading up to the FY21 Budget adoption for Board consideration in May 2020. This update highlights the preliminary proposed budget to achieve Metro Vision 2028, maintain transit infrastructure in a State of Good Repair (SGR), and deploy Metro Bus and Rail services to meet changing customer transit needs. The report focuses on SGR and Operations and Maintenance programs. Bus and Rail service levels were presented to the Customer Experience, Safety, and Operations Committee in February 2020. Consequently, the resource needs are planned to support the service level and will be discussed in this status update report. The dollars estimated to deliver planned SGR projects and Bus/Rail service are preliminary. They are subject to change as the budget development process continues.

DISCUSSION**State of Good Repair (SGR)**

The SGR program proposes asset replacement and improvement projects based on the condition of capital assets and the ability to operate at a full level of performance. It aims to maintain existing transit infrastructure at a high level of safety, transit quality, and reliable operability. Criteria used to evaluate and prioritize Metro asset refurbishment and replacement include industry standards, age-based condition assessment, and asset modernization needs due to obsolescence or technology advancements.

Metro provides the necessary resources to keep the transit system in a state of good repair. In FY21, \$525 million is allocated to maintain Metro's Bus, Rail, regional, and critical information systems. The FY21 budget request reflects planned project activities and cash flow required to complete FY21

milestones and deliverables. A profile of the SGR program is shown in the table below.

Metro State of Good Repair				
SGR Category (\$ in millions)	FY20 Budget	FY21 Preliminary	% of Total SGR Budget	Year Over Year Change
Bus Acquisition	\$ 130.9	203.0	38.6%	55.1%
Bus Maintenance	48.8	34.9	6.6%	-28.4%
Bus Facilities Improvements	9.3	18.3	3.5%	96.5%
Bus Subtotal	\$ 189.0	\$ 256.3	48.8%	35.6%
Rail Fleet Procurement	120.7	86.9	16.5%	-28.0%
Rail Vehicle Maintenance	44.5	62.9	12.0%	41.4%
Rail Facilities Improvements	9.2	12.3	2.3%	34.7%
Wayside Systems	66.6	32.9	6.3%	-50.6%
Rail Subtotal	\$ 241.0	\$ 195.1	37.1%	-19.0%
Regional and Hubs	16.6	20.3	3.9%	22.1%
TAM Project Management Support	0.0	0.4	0.1%	1112.5%
Technology	18.5	31.7	6.0%	71.4%
Non MR/MM Major Construction	17.3	16.8	3.2%	-3.0%
Non-Revenue Vehicles	1.2	4.8	0.9%	315.8%
Other Subtotal	\$ 53.6	\$ 74.0	14.1%	38.1%
Total Proposed SGR Budget	\$ 483.5	\$ 525.4		8.7%

Bus State of Good Repair

Bus Acquisition, Bus Maintenance, and Bus Facilities Improvements make up \$256 million, 48.8% of the total SGR budget.

Bus Acquisition

To pursue an environmentally sustainable bus fleet, the Board has adopted a goal of converting Metro's entire fleet of buses from Compressed Natural Gas (CNG) to Zero Emission Electric Vehicles (ZEB) by the year 2030. This is an ambitious goal considering Metro has the second largest bus fleet in the United States, with high mileage and vehicle performance demand on its 2,300 buses. Electric and Zero Emission bus technology is in the development stage. Metro will partner with electric bus manufacturers to test, develop, and improve electric bus technology to full technological maturity. FY21 Bus acquisition represents the initial step of realizing this goal. Bus acquisition also includes procurement and delivery of CNG buses to bridge the gap between electric bus technology acceptance and retirement. Electric/ZEB Buses will start to be deployed in various transit corridors.

Approximately \$203 million, 38.6% of the total budget is allocated for bus procurement effort. Metro anticipates delivery of approximately 170 forty-foot, 43 sixty foot near zero emission CNG buses, 14 forty-foot ZEB's, and 8 sixty-foot ZEB's. This also includes placement of electric charging equipment and infrastructure at stations on the Orange Line alignment, as well as well as Operating divisions. Orange Line vehicle testing will commence, and upon successful testing will be placed into revenue service.

Bus Maintenance

Bus maintenance projects represent \$35 million, 6.6% of the budget. These projects include refurbishment of buses when they reach mileage or age overhaul standards and marginal condition reliability. Midlife ensures that the bus fleet is operational for the full designated useful life. Refurbishment activities include structural integrity inspections, engine replacement, and change-out of critical system components. It also consists of installation safety features, such as live view security monitors and upgraded ADA wheelchair securement equipment, and farebox upgrades. Although there is a decrease from the FY20 budget, the budget request reflects the specific resource needs and cash flow to perform maintenance to adhere to maintenance schedules.

Bus Facilities Improvements

To ensure that Bus facilities at the operating divisions and transit centers remain safe for occupancy, comply with regulatory standards, and keep in pace with changing service needs, Metro has a comprehensive facilities maintenance program. Bus Facilities Improvements make up \$18 million, 3.5% of the SGR budget. These projects include replacement of underground fuel storage tanks, roof ventilation retrofits, upgrade of fire alarm systems, and pavement replacements. Improvements also include development of plans for facility upgrades, site refurbishment, and site reconfigurations to upgrade facilities.

Rail State of Good Repair

Rail Fleet Procurement, Vehicle Maintenance, Facilities Improvements, and Wayside Systems repair and replacement total \$195 million, 37.1% of the total SGR budget.

Rail Fleet Procurement

Light and Heavy Rail Vehicle procurement and delivery is \$87 million, 16.5% of the budget. Vehicle deliveries are slated for both rail expansion and existing vehicle replacement.

Light rail vehicle deliveries are approaching the final stage of the production and deliveries scheduled in the current contract. Staff will focus on completing vehicle modifications that enhance safety, security, and reliability while closing out minor production and assembly installation. When these activities are complete and accepted, final progress payments will be paid. These vehicles are ready to be deployed as existing service and expansion pre-revenue activities are defined.

Heavy Rail vehicles are being produced for both rail expansion and fleet replacement. Before actual production they go through rigorous testing and evaluation. Two vehicles were delivered for this effort. This is the initial milestone in the process of replacing the original Red Line cars that began service in 1992, and getting vehicle readiness for Purple Line Extension. These new vehicles will replace the existing vehicles and will have many amenities that will improve the customer transit experience. Vehicle reliability will also be increased.

Rail Vehicle Maintenance

Rail Vehicle Maintenance projects are allocated \$63 million, 12.0% of the budget. As with Bus Midlife Refurbishment, Heavy Rail vehicles go through a midlife overhaul. This overhaul consists of replacement of critical system components to extend the vehicle useful life. Vehicles scheduled for midlife will be sent offsite and be brought back for testing, inspection, and final acceptance. Midlife refurbishment inspects and overhauls critical vehicle assemblies that include power and acceleration systems, brake control systems, and numerous other systems required to improve operational reliability.

On-site Refurbishment projects are also proposed in this category. They include the installation of fire safety components that will provide an economical on-board fire life safety solution. These projects are in place to overhaul critical vehicle components currently not scheduled for midlife refurbishment. Performing this maintenance will extend vehicle useful life, provide an alternative to total vehicle replacement, and ensure in-service reliability. Systems scheduled for overhaul include refurbishment of gearboxes, Heating, Ventilation, and Air Conditioning (HVAC) systems, and other major components that require specialized technical skills to rebuild.

Rail Facilities Improvements

Rail Facilities improvement projects make up \$12 million, 2.3% of the budget. Improvement effort will maintain existing Rail facilities of Rail stations and Operating Divisions. Scheduled projects include modifications to incorporate various safety upgrades, such as installation of station/facility fire detection systems and installation/rehabilitation of station elevator and escalators with updated system and safety enhancements. Other projects include station platform gate replacement, rail station/facility lighting retrofits, roof replacements, ventilation retrofits, pavement replacement, and driveway widening.

Wayside Systems

Wayside system improvements make up \$33 million, 6.3% of the budget. It will ensure components such as track, signals, and tunnels are safe and reliable. Projects include Red Line tunnel lighting improvements, Green Line track circuit/control overhaul, upgrade/conversion of systems that have fiber optic technology, and overhaul/replacement of warning and trip systems on the Blue Line. Other safety enhancements include installation of a correct side door opening mechanism on rail vehicles to ensure that vehicle doors open on the active side of a station platform. This will eliminate the possibility of injury during passenger egress. Other projects include replacement of Metro's Red Line Supervisory Control and Data Acquisition (SCADA) system. This computer system enables staff to gather and analyze real-time data to determine equipment related issues and allow for timely correction of problems to minimize system down-time as much as possible. Overhead Catenary System (OCS) inspection /refurbishment and Red Line tunnel corrosion repair will also be performed.

Other Asset Improvements

Other Asset Improvements total \$74 million, 14.1% of the budget, consisting of regional infrastructure

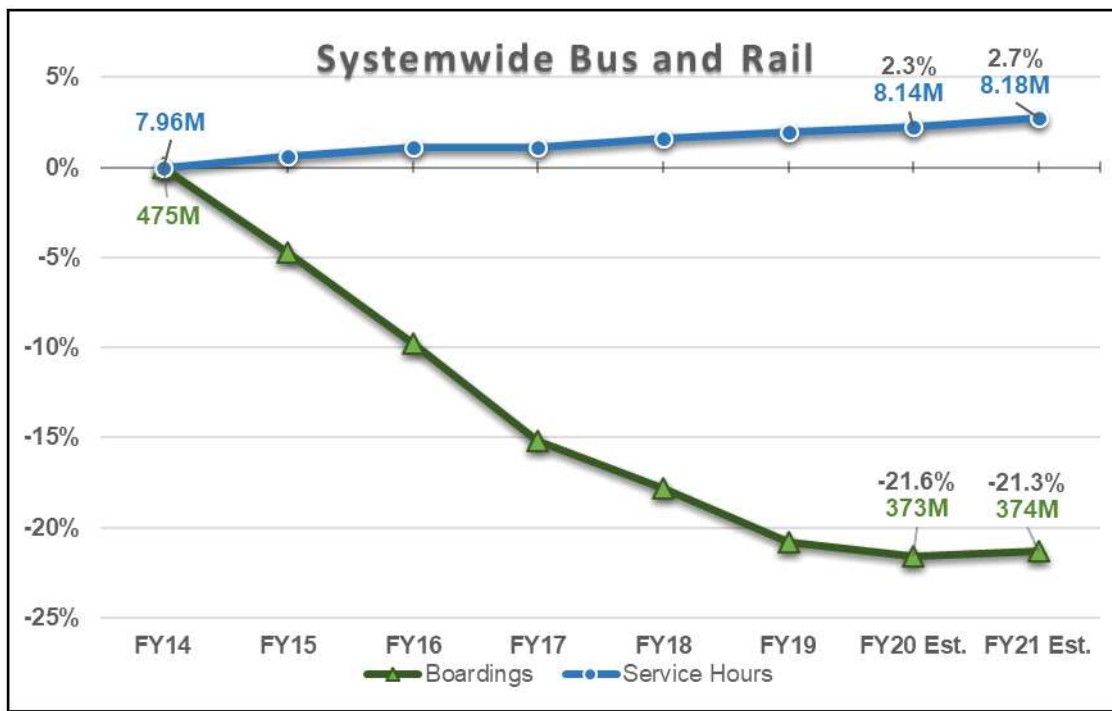
improvements, replacement/maintenance of critical information management systems, and technology upgrades. Specific projects include completion of the Willowbrook/Rosa Parks station refurbishment, as well as on-going Patsouras Plaza station improvements. Procurement, system requirements definition, planning, and rollout of a new asset management, maintenance tracking, and timekeeping system will also be defined and developed. This system will enable Metro to integrate maintenance activities and track the condition, useful life, and depreciation of Agency-wide capital assets. This will augment asset replacement prioritization and planning.

Various projects are in development and will be brought to the board for approval when design and construction scopes are fully defined. This includes initiation of design and engineering effort for a co-located Rail Operations Center (ROC) and Bus Operations Center (BOC). Currently located in separate facilities, the BOC/ROC staff monitor all aspects of Bus and Rail service activities in real-time, allowing rapid, timely management and monitoring of Bus and Rail service. Co-locating them will allow for centralized oversight and better management in the event of a major emergency.

Bus and Rail-Operations Operations and Maintenance

Bus and Rail Service Plan

As the Bus and Rail Service Levels were reported to the Customer Experience, Safety, and Operations Committee last month, the FY21 service plan will not change from current levels with adjustments only to accommodate the exact number of weekends/weekdays in the year, as well as bus bridge hours for planned Transit Infrastructure and SGR construction activities. To ensure service availability, Bus and Rail services have grown over 2 percent since FY14, despite the boarding decline over 21 percent for the same period, as the graph shows below.



Metro staff, Service Councils and other stakeholders are in their partnership to develop and complete the NextGen Bus Study. The objectives are to invest in improving the boarding and riding experience. While the NextGen Bus study is under development, staff is proposing systemwide service parameters and levels consistent with what is in place for FY20. This service level adheres to the Board adopted Metro Transit Service Policy (TSP).

In addition, Metro is rolling out a Microtransit pilot program to introduce a new shared ride transportation service mode. It intends to capture the consumer market that use short-trip options. The initial pilot will cover six zones with a phased-in deployment starting in Summer 2020. Four zones will be rolled out in FY21, with the remaining two in FY22.

Operations and Maintenance Expenses

Based on the Bus and Rail service levels reported to the Customer Experience, Safety, and Operations Committee in February, Operations and Maintenance expenses reflect the resources required to operate and maintain Metro’s Bus and Rail service. Resources include transportation elements for Bus/Rail Operators, Field Supervision, and Operations Control Centers, maintenance activities for Mechanics, Servicers, and Rail Track/Signal Technicians, as well as material needs in fuel, rail electricity, and parts for vehicle preventive maintenance and component changeout. Other items include expenses to maintain and clean facilities and stations, security deployment, call center support, and marketing/communications outreach. Functional resources and systems that track and monitor performance are also included.

Bus and Rail Operations and Maintenance Expenses						
Operations (\$ in millions)	FY20	FY21	\$	%	% of Total	
	Budget	Preliminary	Change	Change		
Bus	\$ 1,290.6	\$ 1,449.5	\$ 158.9	12%	71%	
Rail	546.8	582.5	35.7	7%	29%	
Grand Total	1,837.5	2,032.0	194.6	11%	100%	

The FY21 proposed Bus and Rail Operations budget is estimated to be \$2.0 billion, with \$1.5 billion allocated to Bus and \$583 million allocated to Rail. This represents a \$195 million (11.0 percent) increase from the FY20 budget.

Specific Operations and Maintenance expenses by Bus and Rail are shown below:

Bus Operations and Maintenance Expenses

Operations (\$ in millions)	FY20	FY21	\$	%	% of Total	
	Budget	Preliminary	Change	Change		
Labor & Fringe	\$ 871.7	\$ 950.4	\$ 78.8	9%	66%	
Parts & Supplies	72.0	88.5	16.5	23%	6%	
Fuel / Propulsion	26.7	25.7	(1.1)	-4%	2%	
Other Operating Expenses	130.5	152.1	21.6	17%	10%	
Contract / Professional Service	128.8	171.7	42.8	33%	12%	
Purchased Transportation	61.0	61.3	0.3	0%	4%	
Grand Total	1,290.6	1,449.5	158.9	12%	100%	

The total Bus Operations and Maintenance budget totals \$1.4 billion, a \$159 million (12.0 percent) increase from FY20. Labor and Fringe Benefits make up 66.0 percent of the total Bus budget, with

the remainder of the categories at 34.0 percent. Although the Bus service level remained flat, Labor and Fringe Benefits increased by 9.0 percent. This is mainly attributed to negotiated wage increases for represented staff as well as an increase in Operator, Supervisory, and other staffing for the Microtransit pilot program. In an effort to reduce Worker’s Compensation expenses and get staff back to work more rapidly, Metro is also projecting more participation in its Transitional Duty/Return to Work program. There are higher than anticipated Parts & Supplies costs required to carry out maintenance campaigns, as well as scheduled preventive maintenance on buses. Also impacted are Contract/Professional Services. The additional budget is for the contract to rollout and implementation of the first four Transit Zones of the Microtransit pilot project. Additionally, facilities maintenance cleaning frequencies at facilities and transit centers increased as well.

Rail Operations and Maintenance Expenses

Operations (\$ in millions)	FY20 Budget	FY21 Preliminary	\$ Change	% Change	% of Total
Labor & Fringe	\$ 296.2	\$ 318.6	\$ 22.4	8%	55%
Parts & Supplies	24.6	27.7	3.1	13%	5%
Fuel / Propulsion	33.9	40.2	6.3	19%	7%
Other Operating Expenses	36.1	41.8	5.7	16%	7%
Contract / Professional Service	156.1	154.2	(1.9)	-1%	26%
Grand Total	\$ 546.8	\$ 582.5	\$ 35.7	7%	100%

The total Rail Operations and Maintenance budget totals \$583 million, a \$36 million (7.0 percent) increase from FY20. In Rail, Labor and Fringe Benefits make up 55.0 percent of the total budget, with the remainder of the budget at 45.0 percent. Although Rail service levels also remain flat, Labor and Fringe Benefits increased by 8.0 percent. This is mainly attributed to negotiated wage increases for represented staff, as well as additional staff needed for Rail Fleet and Wayside fleet, track, and signal maintenance. Other cost increases include projected increases in Propulsion Power electricity and Parts and Supplies required for vehicle repair and maintenance.

Public Outreach Update

In an effort to continue public engagement, education, and input to Metro’s budget, staff has partnered with Communications to focus on further improvements to the budget outreach process. Based on feedback received from previous years, staff has embarked on an ambitious effort to use an array of outreach and engagement strategies throughout the year, including development of a new educational video, a more user-friendly budget website (metro.net/myvoice) and survey questionnaire, rebranding of outreach material to generate greater interest, and utilizing social media to engage the public about Metro’s budget.

Metro will also expand the online notice of Metro program information through the metro.net\myvoice web page to community events and venues so stakeholders can give feedback directly to Metro’s programs, projects and initiatives in a timely manner. This bottoms-up approach will allow the public to get more involved and provide input in a way that works for them.

In addition, the very successful annual telephone town hall will be held in April. Budget presentations and discussions at Service Council, Citizens Advisory groups, and Board appointed subcommittees

will take place at the same time. Then most importantly, the legally required public budget hearings in May will round out the public outreach program.

A schedule of the FY21 Budget Outreach for stakeholder and community meetings is shown below:

Stakeholder and Public Outreach Efforts	
Technical Advisory Committee (TAC)	April 1 st
Citizens Advisory Council (CAC)	April 3 rd
Bus Operator Subcommittee (BOS)	April 7 th
Local Transit Systems Subcommittee (LTSS)	April 16 th
Streets & Freeways Committee	April 16 th
Service Council Meetings - Los Angeles County	April 1 – 13
Telephone Town Hall Meeting	April 1 st
Public Hearing	May 20 th

Staff will provide monthly updates on outreach efforts.

DETERMINATION OF SAFETY IMPACT

This recommendation will not have an impact on safety standards at Metro.

FINANCIAL IMPACT

The assumptions described above are the budget planning parameters and will guide the development of the FY21 Budget. Budgets and assumptions may be adjusted as more specific and updated information becomes available.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Recommendation supports the following Metro Strategic Plan Goal:
Goal # 5: Provide responsive, accountable, and trustworthy governance within the Metro Organization.

ALTERNATIVES CONSIDERED

The annual budget serves as the legal authority to obligate and spend funds. Failure to adopt the budget would severely impact Metro’s stated goal of improving transportation in Los Angeles County.

NEXT STEPS


Metro staff will review and finalize the FY21 Budget Proposal and provide monthly receive-and-file update reports until budget adoption. Staff will also conduct outreach to stakeholder groups for in-depth and technical discussions of Transit Services and Transportation Programs included in the FY21 Proposed Budget. The dollars estimated to deliver planned SGR projects and Bus/Rail service are preliminary. They are subject to change as the budget development process continues.

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