



# WMATA FY2018 Q1 FINANCIAL UPDATE

WASHINGTON METROPOLITAN AREA  
TRANSIT AUTHORITY



## First Quarter Management Report





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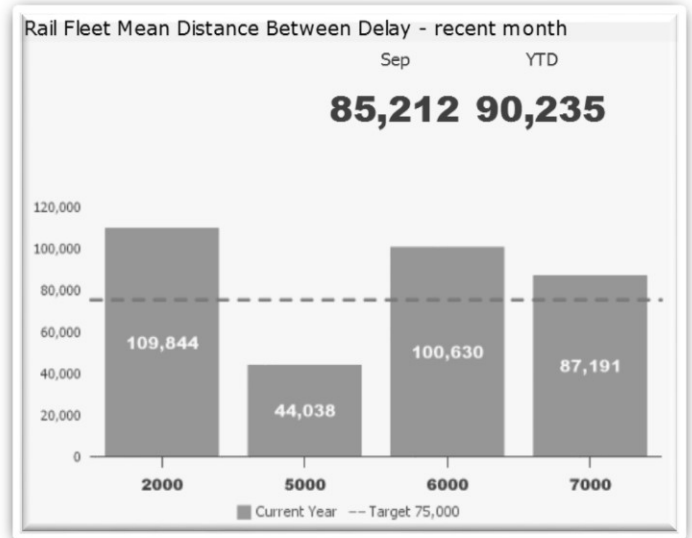
## I. Highlights

In the first quarter, Metro made progress toward accomplishing FY2018's goals and objectives. Efforts to replace and repair vehicles continued at the accelerated pace that was established in FY2017, and progress continued on safety-critical capital improvement, rehabilitation, and maintenance initiatives that are underway to bring Metro Back2Good.

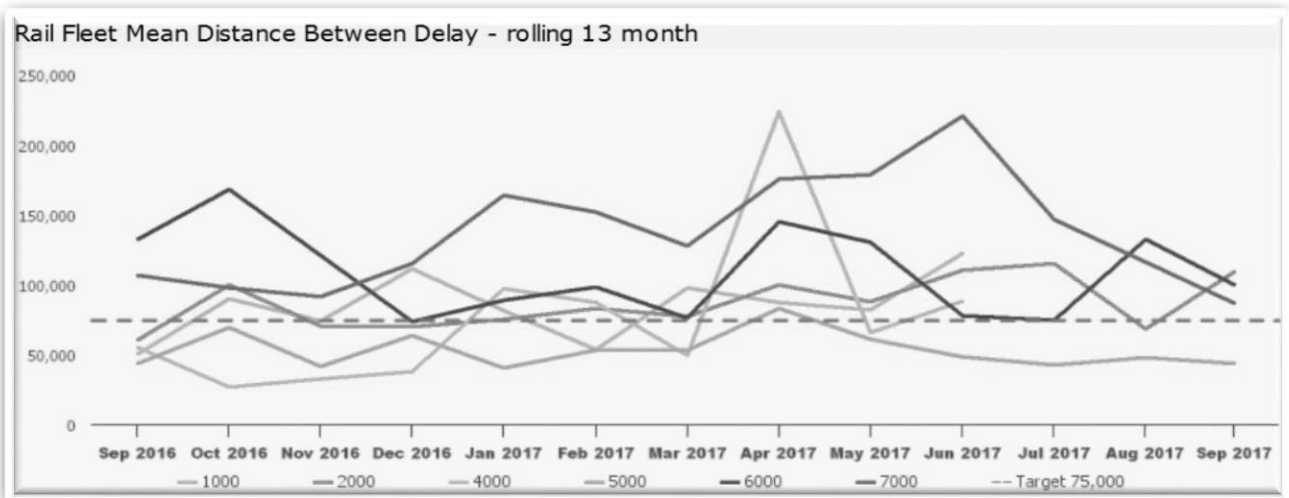
### Operations Results

In Q1, Metro saw indications that management actions and other cost savings are beginning to help offset revenue losses from lower ridership. While total revenue was \$8.7 million less than planned for in the budget, operating expenses were \$27.3 million less than budget, resulting in an operating subsidy for the quarter that was \$18.6 million favorable to budget. Much of this favorability can be attributed to the timing of expenses, but the full year subsidy is still forecasted to be \$6 million favorable to budget.

Metrorail passenger revenue was five percent higher than Q1 of FY2017, an indication that ridership is stabilizing due to the end of SafeTrack and to improved reliability. Nevertheless, rail ridership was one percent less than budget expectations in Q1.



As the charts to the right and below indicate, the introduction of the 7000 series railcars, along with the removal of the 1000 and 4000 series toward the end of FY2017, has substantially extended the average distance between delays, per rail car, and contributed to service reliability.



MetroBus passenger revenue has been significantly below expectations – 12 percent below budget in Q1. Metro is assessing potential causes and remedies related to this decline. Additionally, Metro is making efforts to protect bus operators from crime and improve overall bus safety, including the execution of a contract, in Q1, to install security cameras on 230 buses.



MetroAccess passenger revenue also came in below budget expectations. Metro is working to provide more flexible options for MetroAccess rides including the recent launch (on September 18) of The Abilities-Ride program. This program offers subsidized rides in partnership with Regency Taxi and Silver Cab. Currently, eligible MetroAccess customers can request transportation through these providers for any trip that begins and ends within the MetroAccess service area in Maryland. This program is estimated to save Metro \$4-\$6 million per year, as each trip taken on MetroAccess vehicles costs Metro approximately \$50. There were 139 reported trips during the first 10 days of The Abilities-Ride program.

### Capital Investment

Fifty-six 7000 series railcars were accepted and put into revenue service during the quarter. A total 420 new railcars have been accepted through the end of Q1. Traction power upgrades and rehabilitation efforts also continued along the Orange and Blue lines, and Metro's initiative to elevate traction power cables off the ground was completed – this will reduce the

exposure of power components to water and other elements and help to mitigate fires and associated safety hazards.

Cellular service was initiated between Potomac Avenue and Metro Center, while the segment between Benning Road and Largo Town Center is underway. Metro also initiated a pilot project to implement and evaluate technology that will allow for real-time monitoring of the location of and signaling between track inspectors and other track workers. Additionally, construction began at 16 underground stations and the underlying core network infrastructure for public WiFi installation, while functional testing was completed for Metro's new time-keeping system.

The pilot segments for the tunnel waterproofing initiative along the Red Line were also completed during the quarter. In these test segments, a 2,000 foot section of inbound track between Medical Center and Bethesda, and the entire Medical Center interlocking, a proprietary, polymer-based material was injected through holes drilled into the tunnel ceiling to form a waterproof membrane on the exterior of the tunnel walls.



The tunnels have remained relatively dry, even amid excessive rains in late July and August, which brought up to three inches of precipitation in one day. Metro and its contractor have agreed to continue on an additional 4,000 foot section of inbound track between Medical Center and Grosvenor that will triple the area of deep tunnel segment under the pilot from the initial scope.

### Continuing Quality Improvements

In August The General Manager signed the Quality Management System Plan (QMSP) developed by the Metro's Office of Quality Assurance, Internal Compliance and Oversight (QICO). This plan ensures consistency in Metro's practices regardless of who is performing the work, and guidance to ensure those practices are maintained when employees retire and others assume their responsibilities.

The QSMP provides a foundation that will guide the development of department-specific procedural roadmaps, establishing practices and procedures that apply within every department. Metro's quality standards will also increasingly be supported by the standardization and centralization of data repositories, such as the Transit Asset Management System and the Safety and Maintenance Measurement Systems – and by the predictive and analytic capabilities that these tools will enable.

### Status of Grant Applications and Reimbursement

FTA Grant applications and amendments totaling \$406.6 million were awarded during the first quarter. All FY2018 formula and PRIIA Grants are now in place.

WMATA drew \$158.6 million from FTA funds. FTA's ECHO system was closed for Federal year-end maintenance from September 26 through October 5 and was unavailable for draws during this period.

FTA has closed the Financial Management Oversight Review and fully restored ECHO drawdown privileges on all grants.



## II. Operating Results

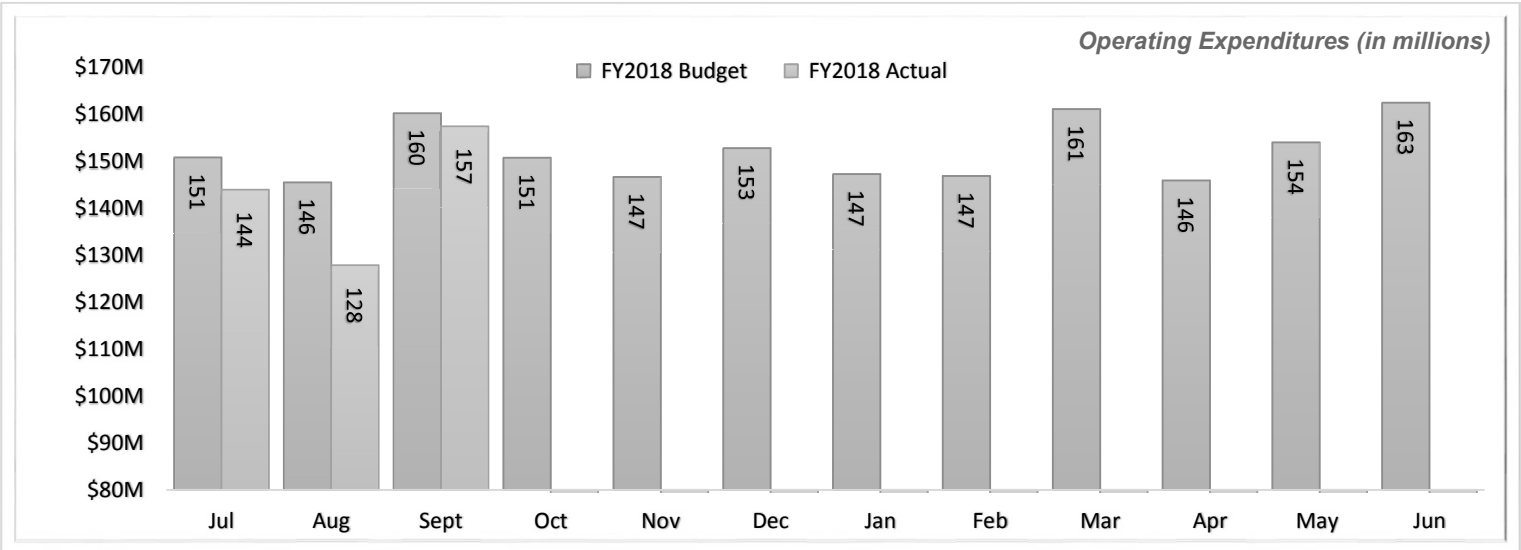
### A. Summary

The FY2018, Q1 operating subsidy was \$223 million, or \$19 million less than budget. This favorability was the result of revenues of \$206 million, or \$9 million below budget, and operating expenses totaling \$429 million or \$27 million below budget.

The favorability in operating expenses was primarily driven by lower costs for salaries and wages, which were \$9 million below budget, and services which were \$16 million below budget, due mainly to timing.

<i>(millions)</i> Year to Date	FY2018-Q1		Favorable/(Unfavorable)	
	Budget	Actual	\$	Percent
Revenue	\$ 215	\$ 206	\$ (9)	(4%)
Expense	\$ 457	\$ 429	\$ 27	6%
Net Subsidy	\$ 241	\$ 223	\$ 19	8%
Cost Recovery	47%	48%		

The operating revenue un-favorability to budget is primarily attributable to a continued decline in bus ridership versus prior year. While bus revenue was three percent lower than last year, it was 12 percent below budget for the quarter. Ridership on bus and rail continue to face challenges stemming from the fare increases and service cuts, perceived service levels, growth in alternative transportation options, low gasoline prices, and telecommuting.



## B. Ridership and Revenue

Ridership and revenue performance compared to budget through the end of the first quarter of FY2018 are summarized in the table to the right.

Total WMATA revenue was \$206 million in the first quarter – below budget by \$8.7 million, or four percent. Metrorail passenger revenue of \$138 million was \$1.5 million (one percent) below budget but five percent higher than prior year, potentially signaling a degree of stability in rail ridership and revenue to start FY2018.

MetroBus passenger revenue of \$34 million was \$4 million below budget for the quarter (or 12 percent), representing a decline of \$1 million (three percent) from last year.

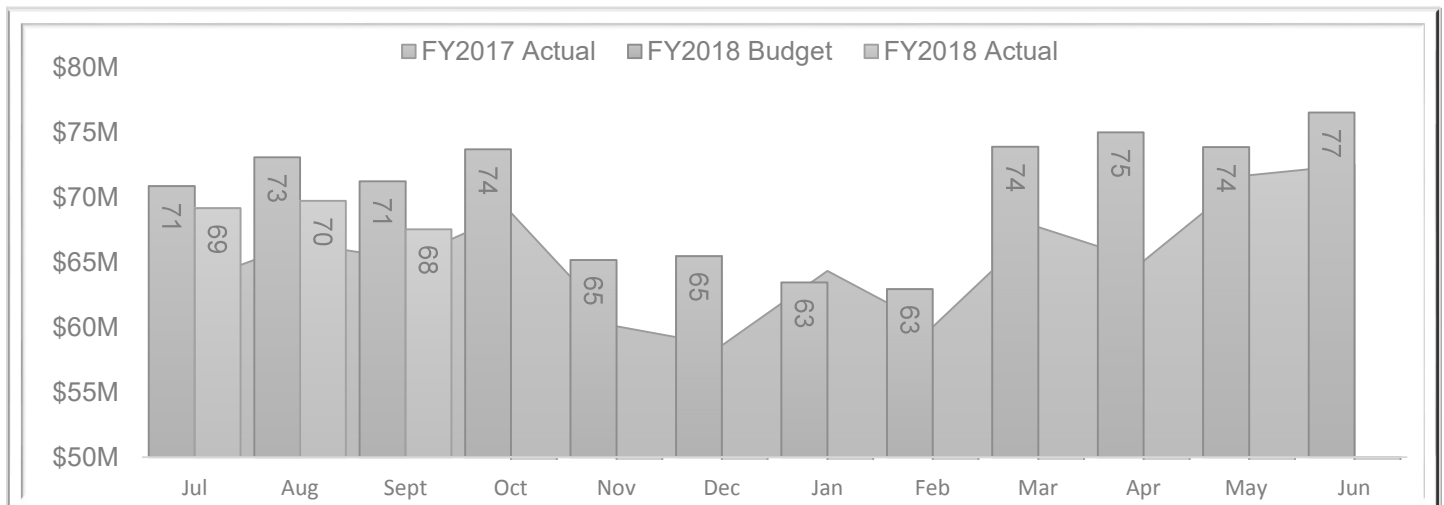
MetroAccess passenger revenue was three percent below budget, ridership was four percent below budget and three percent below prior year.

Parking revenue was three percent below budget but grew three percent over the prior first quarter. Non-Passenger revenue was 11 percent below budget, but grew six percent over Q1 of FY2017.

Total transit ridership on all modes through the fourth quarter was 75 million trips, a decrease of 2.8 million trips or four percent compared to prior year. While MetroBus ridership was projected to decline in FY2018, Metrorail and MetroAccess ridership were projected to increase slightly in FY2018. Actual ridership was below budget for all modes in the first quarter (marginally for MetroAccess) and total ridership for all modes was below budgeted trips by 2.8 million or four percent.

FY2018 Ridership and Revenue Through Q1				
Mode	Measure	Budget	Actual	Variance
Rail	Ridership	46 million	45 million	↓
	Revenue	\$140 million	\$138 million	↓
Bus	Ridership	30 million	29 million	↓
	Revenue	\$38 million	\$34 million	↓
Access	Ridership	0.6 million	0.6 million	↔
	Revenue	\$2.5 million	\$2.4 million	↓
Parking	Revenue	\$11 million	\$11 million	↔
Non-Passenger	Revenue	\$21 million	\$19 million	↓
Total Ridership		78 million	75 Million	↓
Total Revenue		\$215 million	\$206 Million	↓

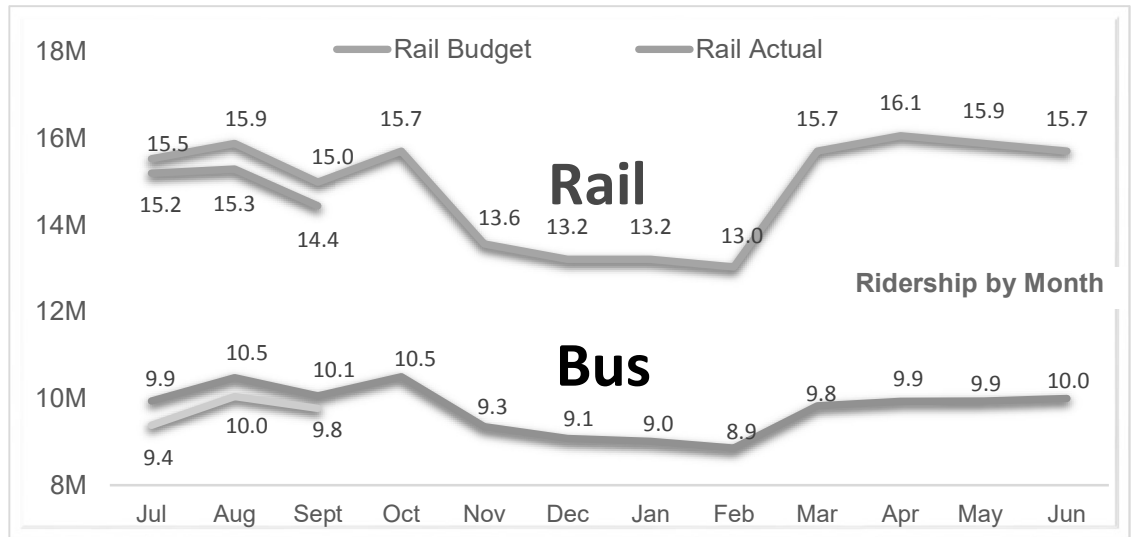
Revenue by Month (In millions)



## Metrorail

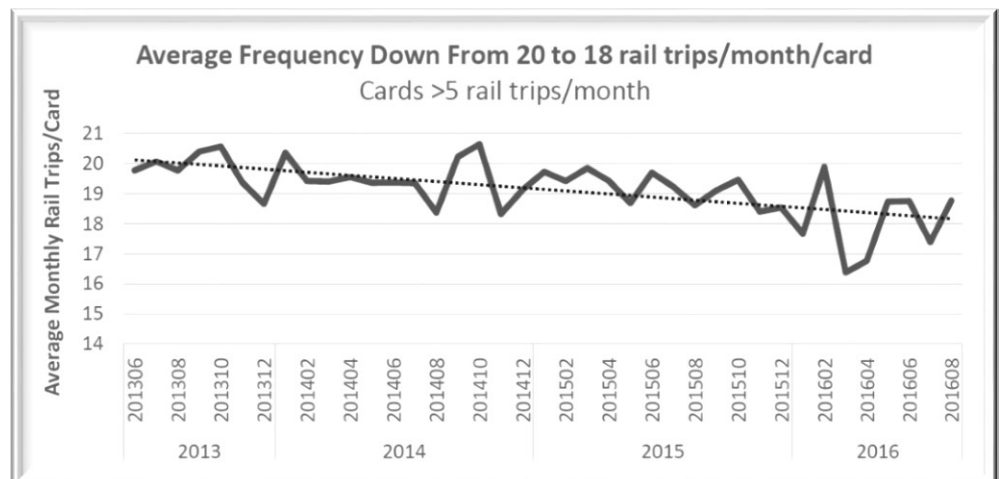
Rail ridership in the first quarter of FY2018 was 44.9 million trips, flat versus prior year and under budget by 1.5 million trips or three percent.

The ridership increase over FY2017 is despite having one fewer weekday than prior year. Weekday ridership was up one percent versus prior year and under budget by one percent, while weekends (especially Saturdays) performed below budget, due in part to continued major trackwork projects. The current rail forecast anticipates ridership essentially on budget and revenue marginally above budget for FY2018 in total.



In May, Metro took steps to reduce fare evasion by launching the FairShare pilot program, which added signage and secured the emergency swinging gates at two stations (Gallery Place and Ft. Totten). There was a noticeable uptick in rail ridership at Ft. Totten during the pilot, as overall ridership was up seven percent at that station (500 entries per day), and revenue increased four percent at the station (\$700 per day). Following the success of the FairShare pilot, Engineering and Architecture teams are working to expand the program to other stations.

As expected, the fare increases and service reductions that went into effect in July negatively impacted ridership on both rail and bus. Rail fares increased 10-25 cents per trip and peak headways widened. The Yellow Line Rush-Plus service was eliminated, while Blue Line service was increased. July's results were also impacted by the timing of the July 4<sup>th</sup> holiday, which occurred on a Tuesday, reducing the preceding Monday's ridership by 21 percent.



Rail ridership after 7pm continues to perform poorly, down 20-50 percent compared to July 2015 due to reduced operating hours, track work, and increasing competition from transit alternatives.

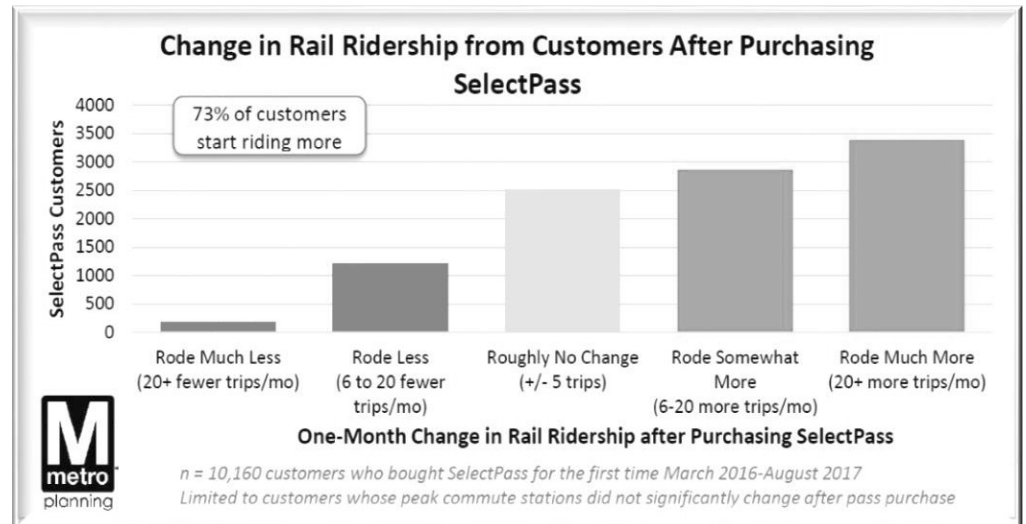
In August, weekday and peak ridership continued to show signs of stability, while off-peak ridership continued to decline. One trend noted by staff was the decline in average travel frequency, from an average of 20 trips per month per SmarTrip card in June of 2013 to approximately 18 trips at present.



Real estate development has re-emerged as a major factor driving ridership gains at certain stations. For example, significant ridership gains are apparent at high-development stations such as Federal Center SW, Tysons-area stations on the Silver Line, Mt. Vernon Square, Navy Yard and Waterfront. Residential growth at Navy Yard is generating peak morning ridership gains of 35 percent.

In September, peak commuter volume appeared to stabilize at 2015 levels, even as off-peak travel continued to drag down overall ridership. Rail entries in the 8:00am and 5:00pm hours, historically the two busiest hours on rail, were within one percent of 2015 levels in September.

New real estate development around Federal Center SW drove up PM Peak ridership by 16 percent in September. Organic growth also continued at Tysons-area Silver Line stations, which were up 1-8 percent over 2015 levels.



Analysis shows that customers average 14 additional trips per month after purchasing SelectPass. After a year of experience with the program, data reveals that 73 percent of SelectPass customers travel more frequently after buying the pass. The average SelectPass customer spends \$30-50 more per month on Metro after they buy the pass, including the price of the pass itself. Moreover, the additional trips persist for months after the purchase.

## Metrobus

Total bus ridership in the first quarter of FY2018 was 29 million trips, a decline of 3 million trips or nine percent compared to the same period last year. In July, Bus ridership was down 16 percent compared to July 2015. The mid-week timing of the July 4<sup>th</sup> holiday significantly impacted the first full week of bus ridership and was responsible for half of the year-over-year ridership decline (July 4<sup>th</sup> was on Monday last year). The 25 cent fare increase (14 percent) and service cuts that took effect at the end of June likely explain the remaining ridership decline. An industry-average fare elasticity of -0.3 suggests that a 14 percent fare increase would be accompanied by a four percent ridership loss, consistent with Metro's results. Ridership was down across all time periods and jurisdictions.



In August, ridership declines were consistent across routes and time periods indicating that the fare increase was likely the cause. Ridership declines continued to be in line with internal forecasts and research on Metro customers' price sensitivity to fares. Metro also felt the impact of cancelling six bus routes with no comparable substitute, and route eliminations represented a loss of service to roughly four percent of system-wide bus ridership. Bright spots



included the Springfield Circulator, G9 and NH2, the latter of which appears to be growing ridership without taking riders from the NH1.

September ridership was consistent with the declines of July and August, with widespread declines across all jurisdictions, times and days. Ridership in September declined versus last year on 156 of 172 Metrobus lines, on all hours of the day except for late-night, and across all fare instruments except the Weekly Bus Pass, which was shielded from the fare increase. Fare evasion button-presses are up and full fare boardings are down 17 percent, outpacing the system as a whole.

### MetroAccess

Total ridership on MetroAccess in the first quarter was approximately 584,000 trips, a decline of three percent compared with Q1 of FY2017, and below projections by four percent. MetroAccess revenue was three percent below budget.

### Parking

Parking revenue through the first quarter was three percent higher than prior year, but was three percent below budget. Usage of Parking facilities in July was 12 percent below July 2015 levels, with the biggest losses occurring in Northern Virginia and Montgomery County. In August, parking transactions were favorable to August 2016 (SafeTrack), but remained nine percent below July 2015 totals. In September, parking transactions inched below 2015 levels, with some gains in DC but losses in Maryland and Virginia.

## C. Operating Expenses

First quarter FY2018 operating expenses of \$429 million were favorable to budget by \$27 million or six percent. The favorability is primarily a result of lower than budgeted services expenses and reduced personnel expenses.

### Personnel Expenses

First quarter personnel expenses (including salaries/wages, overtime, and fringe) of \$318 million were favorable to budget by \$10 million or three percent.

#### Salaries and Wages

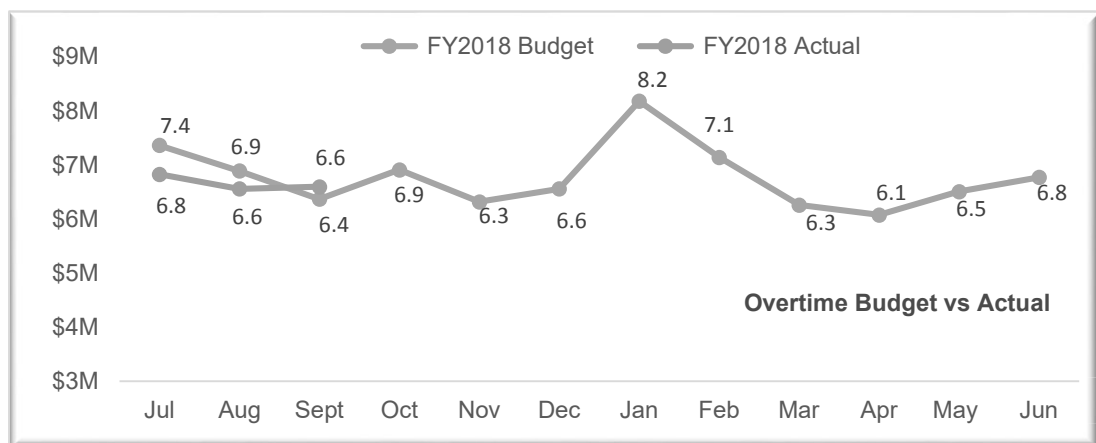
In the first quarter, salary and wage expenses of \$193 million were under budget by \$9 million or five percent. This variance is mainly driven by position reductions and lower than planned staffing levels.

#### Overtime

Overtime expenses of \$20 million in the first quarter of FY2018 were below budget by \$0.6 million or three percent.

#### Fringe

Fringe benefit expenses were \$0.3 million below budget in the first quarter of FY2018.





### **Non-Personnel**

Non-personnel expenses of \$111 million in the first quarter were below budget by \$17 million or 13 percent. The main areas of expense savings were Services, Fuel (Gas, Diesel & CNG) and Insurance & Other, with relatively smaller negative variances in Supplies.

#### ***Services***

Services were \$16.2 million below budget in the first quarter of FY2018. Overall favorability in Services was partially offset by MetroAccess service expenses, which were unfavorable to budget by \$1.4 million.

#### ***Materials & Supplies***

Materials & Supplies expenses exceeded budget by \$1.4 million in the first quarter due to a writeoff of obsolete inventory totaling \$6.0 million.

#### ***Energy (Fuel, Propulsion, Electricity & Utilities)***

Fuel, Propulsion, Electricity and Utilities in the first quarter were lower than budget by \$3.8 million or 12 percent. Fuel expenses totaled \$6.3 million, which was \$2.7 million or 30 percent below budget. Propulsion expenses in the quarter totaled \$12.2 million, or 0.5 percent below budget. Electricity and utilities expenses of \$8.7 million were \$1.0 million or ten percent favorable to budget.

#### ***Capital Overhead Allocation***

The capital overhead allocation represents the reimbursement of indirect costs applied to capital projects, which is a credit to the operating budget. The allocation method was initiated in FY2017 with approval from the Federal Transit Administration (FTA). In the first quarter of FY2018 the capital indirect allocation credit totaled \$9.1 million, or \$3.2 million unfavorable to the operating budget. This unfavorability, due to timing, will be eliminated by year-end.



### III. Capital Programs

Metro invested \$228.3 million in the Capital Program through Q1 of FY2018. The FY2018 capital budget is organized into six investment categories, as follows:

- Railcar Investments;
- Rail Systems Investments;
- Track & Structures Rehabilitation Investments;
- Stations & Passenger Facilities Investments;
- Bus & Paratransit Investments; and
- Business Support Services Investments.

These six investment categories are sub-divided into 17 capital improvement programs.

A detailed page for each Capital Improvement Project (CIP) can be found in Appendix V to this document. CIPs will be referenced throughout where applicable.

The amounts referenced in the investment category narratives represent total cost and include investments that are not funded by federal sources.

Investment Category (\$ in millions)	FY18 Q1 Actual	FY18 Q1 Budget	FY2018 Forecast	FY2018 Budget
<b>Railcar</b>	\$106.5	\$97.2	\$486.5	\$509.8
<b>Rail Systems</b>	17.6	19.4	132.7	129.4
<b>Track &amp; Structures Rehabilitation</b>	27.3	30.3	125.8	127.1
<b>Stations &amp; Pass. Facilities</b>	30.9	37.1	173.3	182.4
<b>Bus &amp; Paratransit</b>	33.3	31.8	206.4	210.3
<b>Business Support</b>	12.7	15.4	92.3	91.0
<b>TOTAL</b>	<b>\$228.3</b>	<b>\$231.2</b>	<b>\$1,217.0</b>	<b>\$1,250.0</b>

#### A. Railcar Investments

Investment by Program	FY18 Q1 Actual	FY18 Q1 Budget	FY2018 Forecast	FY2018 Budget
<b>Acquisition</b>	\$73.4	\$53.7	\$330.8	\$348.2
<b>Maintenance/ Overhaul</b>	\$25.0	\$35.3	\$117.7	\$121.6
<b>Maintenance Facilities</b>	\$8.1	\$8.3	\$38.0	\$40.0
<b>Total</b>	<b>\$106.5</b>	<b>\$97.2</b>	<b>\$486.5</b>	<b>\$509.8</b>

In the first quarter of FY2018, Metro invested \$106.5 million in the Railcar category, which includes the Railcar Acquisition, Railcar Maintenance & Overhaul, and Railcar Maintenance Facilities programs.

##### 1. Railcar Acquisition

In Q1 of FY2018, expenditures in the Railcar Acquisition program totaled \$73.4 million. During the quarter, 56 new 7000 series cars were placed into revenue service; a total of 420 railcars have been accepted through Q1.

	1000 Series	4000 Series
Number of Railcars Taken Out of Revenue Service	278	100
Number of Revenue Collection Railcars	6	N/A
Number of Railcars Disposed	274	22
Number of 4000 Series Railcars Donated	N/A	12
Number Available for Revenue Service	0	0
<b>Total Number of Railcars Remaining on WMATA Property</b>	<b>10</b>	<b>66</b>

Metro also began developing specifications, scope, schedule and a project plan for the procurement of railcars to replace the 2000 and 3000 series vehicles. These plans are scheduled for submission to stakeholders for review in November.

## 2. Railcar Maintenance & Overhaul

Metro invested \$25.0 million in the Railcar Maintenance & Overhaul program toward on-going maintenance and reliability initiatives and activities in the first quarter of FY2018.

Metro's "mean distance between delays," (MDBD) metric improved an average of 34 percent year-over-year. In Q1 of FY2018 MDBD was 87,090. That compares to 64,837 miles between delays in Q1 of FY2017. Prior to Q3 of FY2017, Metro's target was raised by 10,000 miles to an average of 75,000 miles of revenue service between delays – and the actual average miles between delays surpassed this goal every month in Q1, as shown in the chart below:

## INVESTMENT CATEGORY: RAILCAR

### Total FY2018, Q1 Expenditures – \$106.5 million

#### Railcar Acquisition – \$73.4 million

- Fifty-six new 7000 series railcars placed into revenue service.
- Specification drafts and project planning underway for 8000 series procurement.

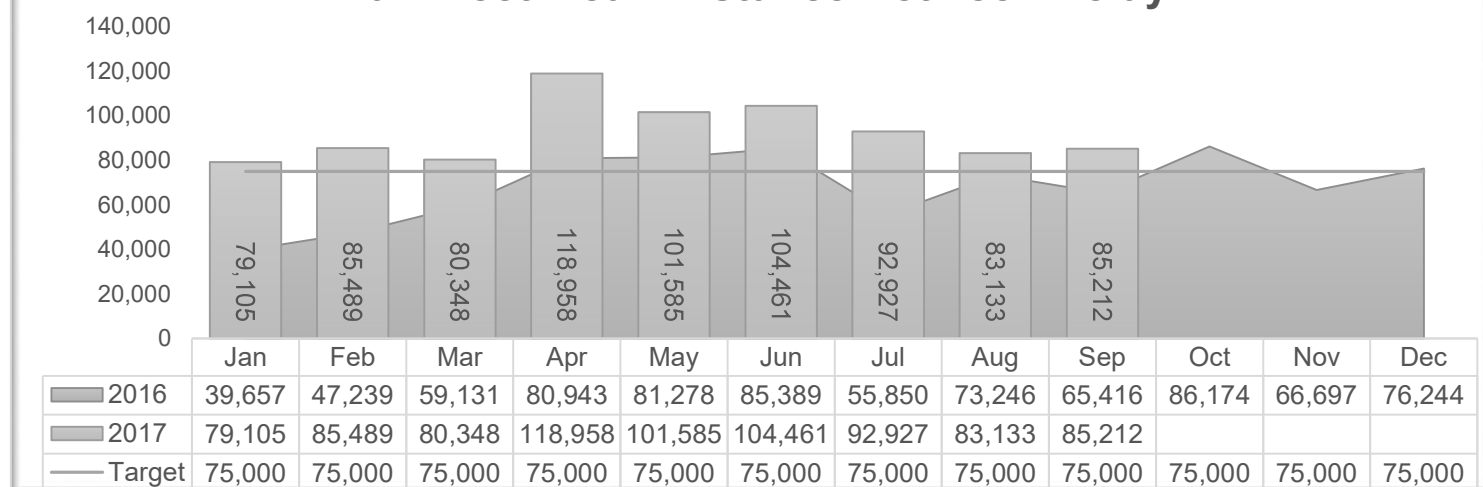
#### Railcar Maintenance & Overhaul – \$25.0 million

- Mean Distance between Delays improved 34%, year-over-year (averaging 87,090 miles).
- Completed door overhauls on 92 railcars and upgrades to HVAC units on 18 railcars.

#### Railcar Maintenance Facilities – \$8.1 million

- Alexandria Yard Track and Structures Maintenance building construction to be completed in Q2.
- Phases 1&2 (of 3) complete on West Falls Church Railcar lifts, along with new section of Shady Grove lifts.
- Final Design complete at Brentwood

### Rail Fleet Mean Distance Between Delay





For state of good repair maintenance of the railcar fleet, \$13 million was invested in preventive maintenance activities in Q1. This investment provides the labor required to upgrade, repair, and maintain capital assets that have a useful life over one year.

In addition to preventive maintenance, Metro performs periodic railcar rehabilitation and overhaul. In Q1, \$11.4 million was expended on these activities, with a focus on the 2000/3000 series air compressors, HVAC conversions, truck assemblies, master controllers, sub-flooring and other components; as well as the 6000 series truck assemblies.

HVAC systems were also upgraded on 18 railcars during the quarter, and door overhauls were completed on 92 Railcars. Updated Precision Stop software was received, user acceptance testing was performed, and functionality testing was initiated. This software automates the stopping of rail cars at stations to consistently align the railcar and doors with the platform, compensating for 8-car and 6-car trains. First quarter expenditures on railcar safety and reliability enhancements totaled \$0.5 million.

### **3. Railcar Maintenance Facilities**

Capital improvements and rehabilitation work at Railcar Maintenance Facilities totaled \$8.1 million in Q1. Of this total, expenses of \$7.3 million went toward the continuing repairs at rail yard facilities. Construction is projected to be complete at the Alexandria Track and Structures maintenance building in Q2, and switchgear replacement at the Alexandria service and inspection shop is underway.

Rehabilitation of the railcar lifts at West Falls Church were completed for Phases 1 and 2, while Phase 3 is projected to be completed in Q2. All design was completed in Q1 for Brentwood, along with sight lighting. The PA and fire alarm systems at Brentwood will be carried out in phases until the project is complete.

Additionally, the Yard Control Building at New Carrollton has been reintroduced to the project scope. The building was initially de-scoped, as it was planned for demolition to clear the way for a yard expansion, however the expansion project was put on hold, and as a result, the life safety aspects of the Yard Control Building rehabilitation will be necessary to complete in FY18.

An RFP was released for a construction contract to build out the new facility at Good Luck Road, as various maintenance departments are relocated there. By the end of Q2, Metro plans to have issued the contract and initiated construction and relocation of these departments.



## B. Rail Systems Investments

Investment by Program	FY18 Q1 Actual	FY18 Q1 Budget	FY2018 Forecast	FY2018 Budget
<b>Propulsion</b>	\$7.3	\$9.4	\$46.5	\$39.5
<b>Signals &amp; Communications</b>	\$10.3	\$10.0	\$86.2	\$90.0
<b>Total</b>	<b>\$17.6</b>	<b>\$19.4</b>	<b>\$132.7</b>	<b>\$129.4</b>

Metro invested \$17.6 million in Rail Systems during the first quarter of FY2018. The Propulsion and the Signals & Communications programs are included in this category.

### 1. Propulsion

Investments in the Propulsion program amounted to \$7.3 million in Q1 of FY2018. Of this expense, \$3.9 million was expended on improvements to the traction-power system.

An upgraded traction power substation was completed at Ft. Mahan. A contract for six upgraded tie breaker stations is ahead of schedule, with three locations complete and two more in progress at Benning Road and Capitol Heights.

The bidding process is underway for system upgrades along the Blue Line, and the installation of Automatic Train Control card bonds and cabling for eight-car trains has been incorporated into traction power upgrade projects.

In Q1, \$2.8 million was also invested to replace traction power related components that are beyond or nearing the end of their useful life. The effort to elevate traction power cables off the ground near the third rail is nearing completion, with all cables elevated on the main line. This effort is critical in improving safety and preventing track fires.

### 2. Signals & Communications

Metro invested \$10.3 million in Q1 of FY2018 in the Signals & Communications program. This program implements National Transportation Safety Board (NTSB) recommended safety improvements, supports the repair and improvement of the Automatic Train Control system; and replaces the Radio Communications System with a new Federal Communications Commission (FCC) mandated, 700 MHz band continued as well.

#### INVESTMENT CATEGORY: RAIL SYSTEMS

**Total FY20178 Q1 Expenditures – \$17.6 million**

##### *Propulsion – \$7.3 million*

- Three Tie Breaker Station locations completed
- Two Traction Power Substation completed
- “Boots off the ground” initiative complete on the main line.

##### *Signals & Communications – \$10.3 million*

- Initiated pilot project for Track Inspector Location Awareness
- Cellular service live between Metro Center & Potomac Ave.

Automatic Train Control State of Good Repair continued in Q1 with 7,500 linear feet of cable installed, 5 switch machines rehabilitated, cable meggering on-going at 60 per quarter, and 48 high current bonds installed. An inventory of non-vital processors is underway and an NTP for phase 2 of the ATC portion of Metro's asset management database is planned for Q2. (Phase 2 involves the surveying, conditional assessment, and entry into Maximo of all ATC assets, along with monitoring to ensure that these processes follow the standardized rules and practices established for Metro's enterprise wide Asset Management structure) In Q1, \$3.2 million was expended toward these efforts.

Progress continued as well on the replacement of the radio communications system and wiring for cellular service.

In Q1 FY2018, Metro completed the segment between Metro Center and Potomac Avenue, while work continued on the segment extending between Benning Road and Largo. Design is 95 percent complete for the set-up of the NICE digital recording system, which will record all contact center call, text and data communications to provide intelligence and analytics. This will improve Metro's ability to ensure procedures and protocols are being followed and to gather critical information related to incidents and accidents.



Metro also installed pilot technology – to evaluate track inspector location awareness systems and enhance transit worker protection – at the first track segment planned (Reagan Airport to Potomac Yard). These pilot systems will include a wireless wayside radio anchor unit with flashing LED lights located 800 feet apart throughout the agency's property. Wearable technology (worn by the track workers) will communicate with the full duplex radio creating bidirectional communication through the operation control center, which will be able to pinpoint the location of the track inspector within one meter.

Metro is initially deploying the technology to these select locations and segments and will measure effectiveness. The results of this pilot will determine whether or not to move forward with Protran technology as a solution for the entire system for wayside worker protection and location.

The deteriorating Emergency Telephone System infrastructure is also being improved and replaced. The new ETS Telephone system will replace the existing instruments with intelligent phones that can perform self-diagnosis. In Q1, an RFP was issued for the manufacturer of the new ETS telephone and management system, along with a separate RFP for the cable installation contractor.



## C. Track & Structures Rehabilitation

Investment by Program	FY18 Q1 Actual	FY18 Q1 Budget	FY2018 Forecast	FY2018 Budget
<b>Fixed Rail</b>	\$17.3	\$23.0	\$87.8	\$99.0
<b>Structures</b>	\$10.0	\$7.3	\$38.0	\$28.1
<b>Total</b>	<b>\$27.3</b>	<b>\$30.3</b>	<b>\$125.8</b>	<b>\$127.1</b>

In FY2018, Track & Structures Investments will continue to be focused on reinforcing and rehabilitating infrastructure to maintain a state of good repair. The Track & Structures Investment Category includes two programs – Fixed Rail and Structures. In Q1, \$27.4 million was invested in this category.

### 1. Fixed Rail

Metro expended \$17.3 million on the rehabilitation, repair or replacement of track components during Q1 of FY2018. Scheduled efforts have continued to rehabilitate or replace infrastructure, such as crossties, direct fixation fasteners, insulators, switches, running rail, open joints, rail track signage and grout pads in priority areas throughout the system.

By the end of Q1, three weekend shutdowns were completed, along with one extended shutdown on the Green Line. Two more extended shutdowns are currently planned (October and April).

### INVESTMENT CATEGORY: TRACK & STRUCTURES

#### Total FY2018 Q1 Expenditures – \$27.3 million

##### *Fixed Rail – \$17.3 million*

- Three weekend shutdowns complete – one extended shutdown on Green Line Complete
- 5,500 fasteners, 3,400 crossties, and 3,300 insulators replaced.

##### *Structures – \$10 million*

- Test grouting solution was applied between Medical Center and Bethesda stations for Red Line Leak mitigation.
- 15,000 linear feet of drains rehabilitated.

## 2. Structures

The Structures program accounted for \$10 million of Q1 expenditures. Of this expense, \$3.6 went toward the rehabilitation of structural components and elevated platforms, grout pads that support the track structure, and the replacement of old illegible roadway track signs. On-going station tunnel leak litigation is also included in these expenditures.

Water infiltration into the tunnel system along the Red Line is being addressed separately with a pilot program, which involves injecting a polymer-based solution into the surrounding rock surface to form a waterproof barrier around the tunnel.



### Track Components Rehabilitated in Q1

- 3.2 miles running rail
- 4 Switches
- 4,299 DF fasteners
- 6,285 crossties
- 1,748 insulators,
- 7.6 miles of track tamped
- 255 open rail joints welded
- 0.6 miles of third rail replaced.

### Structural Track Components Rehabilitated in Q1

- 361 square feet of concrete poured
- 207 signs replaced
- 3,711 linear feet of grout pads
- 116 leaks repaired
- 13,428 linear feet of drains rehabilitated.

In Q1, \$6.4 million was invested toward this effort, and the product was applied between Medical Center and Bethesda stations. In Q2 Metro will evaluate the effectiveness of the pilot tunnel solution, and potentially exercise the option to complete tunnel segment.

## D. Stations & Passenger Facilities Investments

Investment by Program	FY18 Q1 Actual	FY18 Q1 Budget	FY2018 Forecast	FY2018 Budget
<b>Platforms &amp; Structures</b>	\$16.7	\$20.6	\$75.9	\$85.9
<b>Vertical Transportation</b>	\$10.5	\$13.6	\$56.7	\$60.5
<b>Station Systems</b>	\$3.7	\$2.9	\$40.7	\$36.0
<b>Total</b>	<b>\$30.9</b>	<b>\$37.1</b>	<b>\$173.3</b>	<b>\$182.4</b>



In the Stations & Passenger Facilities category, \$30.9 million was invested in Q1 of FY2018. This category consists of three capital programs: Platforms & Structures, Vertical Transportation, and Station Systems.

### 1. Platforms & Structures

In the Platforms & Structures category, \$16.7 million was invested in FY2017. The largest share – \$10.2 million – was invested in stage one of the Orange/Blue Line Rehabilitation.

A Traction Power Substation was completed at Crystal City, and work is underway at Potomac Ave. Ceiling lights were replaced at Pentagon, McPherson Square and Farragut West.

In Q1, \$2.8 million was invested in the Station Rehabilitation Program, which consists of thorough cleaning and power washing of all concrete and architectural features and repair of worn interior fixtures. Full rehabilitations were completed at Eastern Market, Archives and Court House Stations. Partial rehabs were completed at Brookland, Franconia/Springfield and Capital Heights.

The Platforms & Structures program also includes construction support (engineering, safety assurance and design review support) to the Metropolitan Washington Airports Authority (MWAA) for the Silver Line Extension. For Phase I, Metro worked to resolve punch list items and review deliverables to prepare for the closeout of the project in Q3 or Q4.

For Phase II, an NTP was issued for the design of Silver Line signage, while design was also completed for Automatic Fare Collection equipment. In addition, safety and security conformance testing began in August. In Q1, \$1.4 million was expended on these projects.

## INVESTMENT CATEGORY: STATIONS & PASSENGER FACILITIES

### Total FY2018 Q1 Expenditures – \$30.9 million

#### *Platforms & Structures – \$16.7 million*

- Ceiling lights replaced at Pentagon, McPherson Square and Farragut West
- NTP for Phase II Silver Line signage

#### *Vertical Transportation – \$10.5 million*

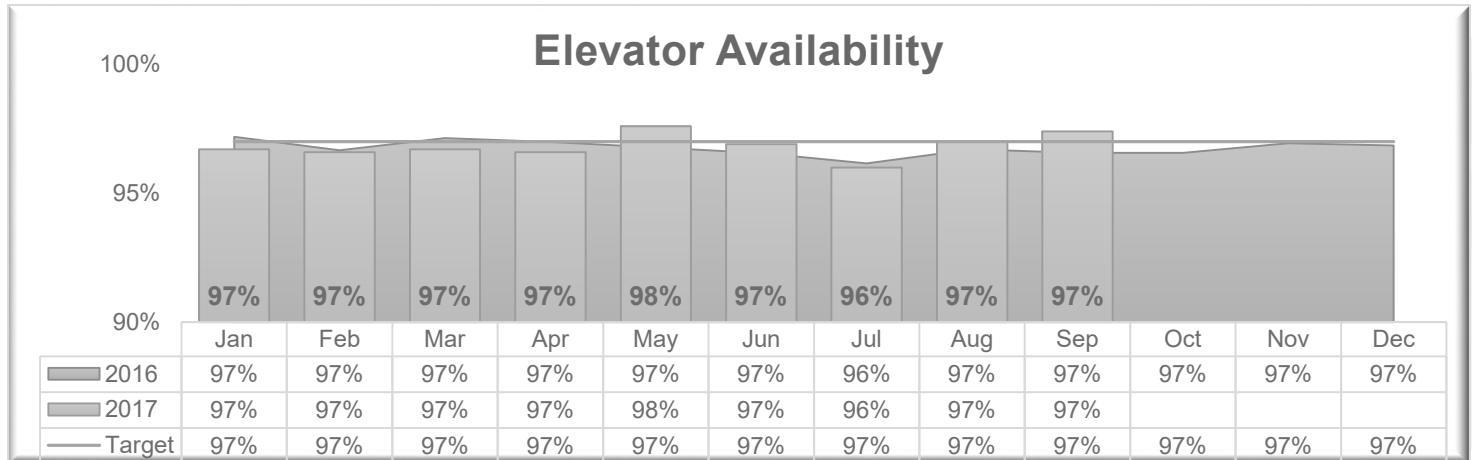
- 1 elevator returned to service
- 4 escalators replaced.

#### *Station Systems – \$3.7 million*

- NTP issued for drainage and discharge piping at seven locations
- Integration of VMS operations alert software with Fire alarm system underway

## 2. Vertical Transportation

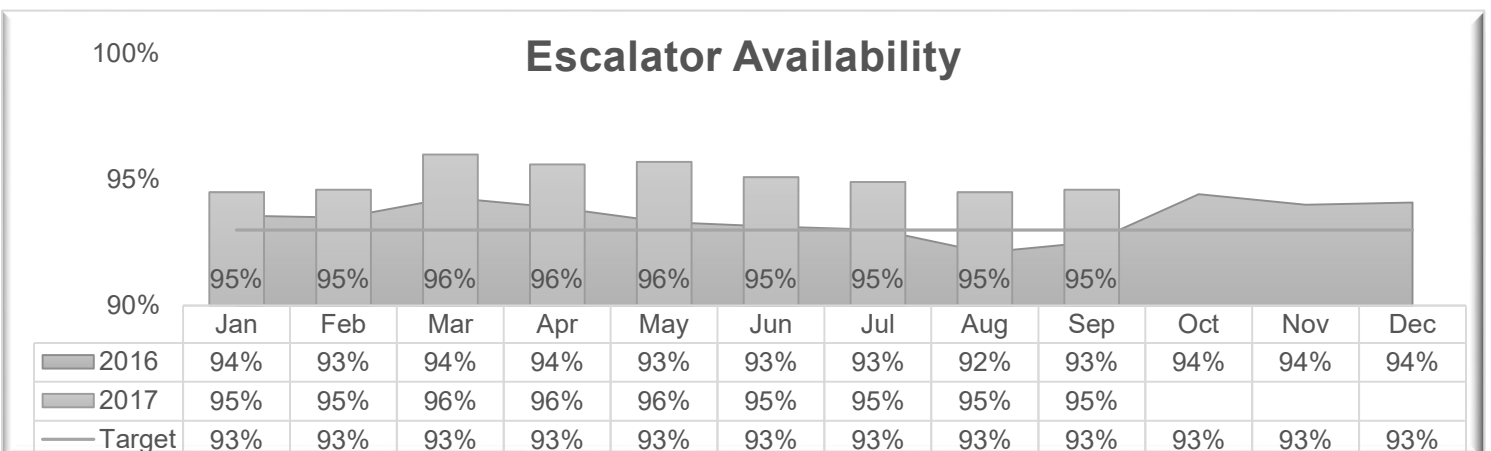
Metro continues to invest in replacing the system's escalator and elevator infrastructure and the various components required for its safe and reliable operation. Metro invested \$10.5 million in improvements and renovations to vertical transportation in Q1 of FY2018. Below is an updated summary of the renovation and replacement activities for escalators and elevators in the quarter.



**Elevator Rehabilitation** – In Q1 expenses of \$2.5 million was invested, and one elevator was returned to service at Pentagon.

**Escalator Replacement** – In Q1, Metro expended \$7.3 million, and four escalators were replaced – two at U Street, one at Cleveland Park, and one at Smithsonian.

**Elevator/Escalator Repairables** – \$0.6 million was invested in Q1, and Metro has begun replacing brake boards and refurbishing the 15,000 steps planned for FY2018.





### 3. Station Systems

In Q1, \$3.7 million was invested in the Station Systems program, of which \$0.5 million was expended on upgrades to fire alarm systems in auxiliary facilities. Metro completed upgrades to the fire systems at the revenue collection facility in Q1, and worked to integrate VMS software into the fire alarm system so that operations control centers can be alerted as soon as an alarm is triggered and can contact the area fire department.

Expenditures of \$0.7 million were incurred in Q1 for drainage improvements throughout the system. Rehabilitation of drainage systems was completed during the quarter at Queens Chapel and DuPont Circle. An NTP was also issued for drainage and discharge piping rehabilitation at Drummond Ave, Pentagon, 7th & Mall, Forest Glen, Metro Center, Van Ness and Mid River.

Q1 expenses in this program also went to the station cooling initiative, with \$0.9 million supporting chiller overhauls at JGB and Congress Heights, and the installation of Freon detectors at seven locations (Anacostia, Ballston, Clarendon, Columbia Heights, Medical Center, Rosslyn and Union Station).

## E. Bus & Paratransit Investments

Investment by Program	FY18 Q1 Actual	FY18 Q1 Budget	FY2018 Forecast	FY2018 Budget
<b>Bus and Paratransit Acquisition</b>	\$0	\$0.2	\$79.5	\$77.8
<b>Bus Maintenance/Overhaul</b>	\$11.9	\$14.5	\$58.2	\$62.8
<b>Bus Maintenance Facilities</b>	\$21.2	\$17.0	\$64.2	\$62.1
<b>Bus Passenger Facilities</b>	\$0.2	\$0.1	\$4.6	\$7.6
<b>Total</b>	<b>\$33.3</b>	<b>\$31.9</b>	<b>\$206.4</b>	<b>\$210.3</b>

The Bus & Paratransit Investment Category includes four programs: Bus & Paratransit Acquisition; Bus Maintenance & Overhaul; Bus Maintenance Facilities; and Bus Passenger Facilities & Systems. In Q1 of FY2018, total expenditures in this category were \$33.3 million.

### 1. Bus & Paratransit Acquisition

Metro replaces an average of 100 buses per year and continues to procure buses that utilize clean fuel technologies. In FY2018, 100 CNG buses (40 foot) are planned for delivery in the second half of the fiscal year.

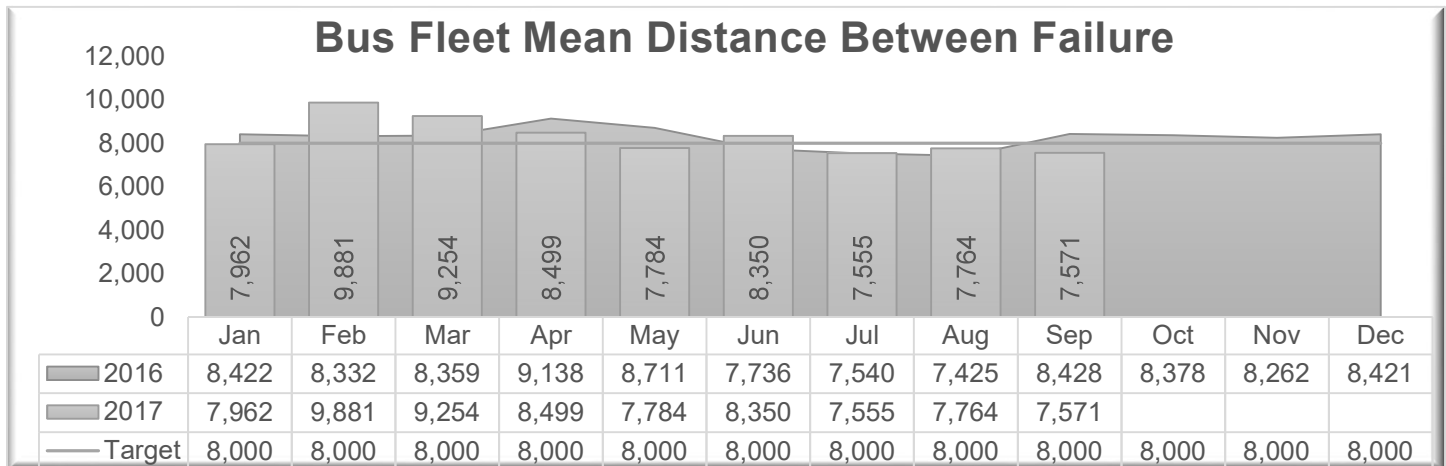
In Q1, 227 MetroAccess vehicles were also ordered, and delivery is planned for the second half of the fiscal year. The MetroAccess fleet size as of September 30 was 746 vehicles, 25 of which are scheduled for retirement by the end of October.

### 2. Bus Maintenance & Overhaul

Metro's bus maintenance and overhaul investments are focused on maintaining reliability and the safe operating condition of the equipment, and to achieve the maximum useful life of the assets.

Metro invested \$11.9 million in the Bus Maintenance & Overhaul program in Q1 of FY2018. The majority of these funds was invested in comprehensive mechanical, electrical, and structural rehabilitation that takes place at 7.5 years of life for each bus.

Mean-Distance-Between-Failure (MDBF), measured in miles of revenue service, did not meet the 8000 miles in any month during the quarter. Rehabilitation activities included 25 bus rehabilitations, 24 energy storage systems replaced, 25 engine assemblies rebuilt, and 30 transmission assemblies rebuilt.



### 3. Bus Maintenance Facilities

During Q1 of FY2018, \$21.2 million was invested in Bus Maintenance Facilities. Of this, \$19.2 million was expended on the replacement of the Southern Avenue Bus Garage with a modern Leadership in Energy and Environmental Design (LEED) Silver facility, Andrews Bus Garage, which will increase capacity from 103 to 175 buses.

The new bus garage is being constructed at the Joint Base Andrews Federal Center, and Environmental clearance and permitting has already been issued. In Q1, retaining walls, membrane roofing, and precast concrete envelope were completed. In Q2 the interior slab will be laid, and plans for the remainder of FY2018 include the completion of mechanical, electrical and plumbing work, interior finishing, and concrete paving.

#### INVESTMENT CATEGORY: BUS & PARATRANSIT

##### Total FY2018 Q1 Expenditures - \$33.3 million

##### *Bus & Paratransit Acquisition – \$0 million*

- 100 Buses planned for delivery in FY2018;
- RFP issued for 5-year Bus procurement

##### *Bus Maintenance & Overhaul – \$11.9 million*

- 25 buses rehabilitated;
- Contract executed to install security cameras on 230 buses

##### *Bus Maintenance Facilities – \$21.2 million*

- At Cinder Bed Road Garage, Automatic Fare Collection Systems, wireless systems and furniture were installed.
- Andrews Federal Center Garage planned completion in 2019.

##### *Bus Passenger Facilities/Systems – \$0.2 million*

- Design work for ADA improvements completed for 206 locations
- Electrical step-down work completed at five stations.

At the new Cinder Bed road facility (replacing the Royal Street Bus Garage) Automatic Fare Collection Systems were installed, along with wireless systems and furniture. In FY2017, \$1.8 million was expended on this project in Q1.

#### 4. Bus Passenger Facilities & Systems

\$0.2 million was expended in the Bus Passenger & Facilities program through Q1. Electrical step-down work was completed at Fort Totten, Addison Road, Rhode Island, Huntington and Tysons Corner, and is underway at Brookland station.

Design work for ADA accessibility improvements was completed for 206 locations in Prince George's County. RTPI display installation is planned for completion at eight locations, and the ADA construction contract award is planned for Q2.



## F. Business Support Investments

Investment by Program	FY18 Q1 Actual	FY18 Q1 Budget	FY2018 Forecast	FY2018 Budget
<b>IT</b>	\$10.2	\$11.1	\$71.0	\$66.4
<b>MTPD</b>	\$0.1	\$0.4	\$0.8	\$1.0
<b>Support Equipment &amp; Services</b>	\$2.4	\$4.0	\$20.4	\$23.6
<b>Total</b>	<b>\$12.6</b>	<b>\$15.5</b>	<b>\$92.3</b>	<b>\$91.0</b>

In Q1 Metro invested \$12.6 million in the Business Support Investment category. This includes the Information Technology, Metro Transit Police Department, and Support Equipment & Services programs.

### 1. Information Technology

Information technology investments accounted for \$10.2 million of all Business Support expenditures in Q1 of FY2018.

In Q1, \$2.2 million was spent on the further development of software interfaces that enable the transfer of data to support financial controls and decision support, such as OneBadge, Kronos (the new time keeping system), Human Capital Management, and Asset Management. In Q1 Metro developers worked to provide bi-directional data integration between PeopleSoft (HCM and Financials) and Kronos Time Entry System.



This effort will continue in Q2 with the solution moving into production at the end of October. A complete needs assessment will be compiled for future OneBadge requirements, and planning will begin for Hyperion Financial Management software to be integrated with Metro's current financial systems environment.

To improve electronic communications and systems that support the efficient delivery of services and customer outreach, Metro expended \$0.4 million in Q1.

This work includes systems that support scheduling, customer alerts, commuting benefits, and fares as well as applications that assist WMATA departments in the efficient delivery of core services.

In Q1, WMATA IT created a user interface design and a style guide for an upgrade to the General Orders Track Rights System (GOTRS), and conducted debugging and requirements gathering for a new version of the Contractors Automated Timekeeping System (CATS).

IT program expenditures of \$0.5 million went toward the further development of the automated and centralized Safety Management System to capture incident and safety information across the system and improve operations where there are opportunities to do so. The Safety Management tool captures information from accidents and incidents that occur at Metro stations, Metro facilities and all Metro vehicles including all three modes.

In Q1, Metro IT had "Extract-Transform-Load" developers working on the predictive analysis elements of the tool and on requirements gathering for "return to work" trends analysis. In Q2 Metro will begin Sharepoint migration, which will be done in three waves – incidents and accidents, risk fatigue, and input and reporting updates.

Metro expended \$1.5 million on the configuration and deployment of the new, standardized time management solution. In Q1, parallel system testing with Metro's current PeopleSoft environment was completed, including Time and Labor, Project Costing, HRM, ELM and Payroll, and user acceptance testing was completed as well. In Q2 Metro will begin the rollout to telestaff, and will start end-user training.

## 2. Metro Transit Police Department

In Q1, a total of \$0.1 million was invested in the Metro Transit Police Department capital program. The bulk of this investment went toward the procurement of non-lethal weapons and the lifecycle replacement of other police support

### INVESTMENT CATEGORY: BUSINESS SUPPORT

#### Total FY2017 Q4 Expenditures – \$12.7 million

##### Information Technology – \$10.2 million

- Functional testing completed for Time-keeping system
- Sharepoint migration for Safety Measurement System tool to begin in Q2.

##### Metro Transit Police Department – \$0.1 million

- On-going support equipment.

##### Support Equipment & Services – \$2.4 million

- Phase II field surveys continued along with data collection and evaluation got Asset Management
- 7000 Series energy consumption data to be entered into audit in Q2.



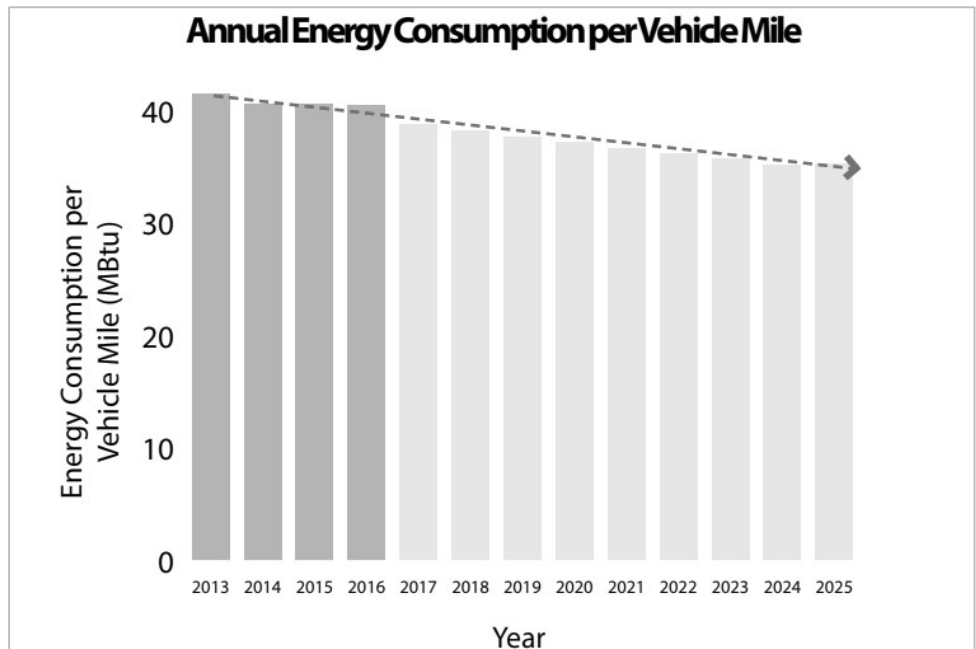
and security equipment. By the end of the fiscal year, Metro will begin design for a police substation at Morgan Boulevard.

### 3. Support Equipment & Services

In the Support Equipment & Services capital program, Q1 expenditures totaled \$2.4 million. Of this total, \$0.4 million was spent for jurisdictionally funded planning studies for future Metro activities or initiatives in Washington, D.C., Maryland and Virginia.

Metro invested \$0.1 million in Q1 in the Energy Monitoring and Analysis tool and Energy Audit. In Q2, the 7000 series rail car energy consumption findings will inform the Energy Audit report baseline conditions and advance progress on the final report. Metro staff will also receive log-ins and training for the Energy Monitoring and Analysis tool.

Additionally, a task order had been issued for specifications based on recommendations from the study of regenerative braking equipment – which could allow for the “recycling” of energy from brake friction to help power trains. Metro will also receive portable solar lighting towers.



Progress continued as well on the development of asset surveys, inventories, conditional assessment, and management. Having established the decision support tools and investment prioritization, Metro plans to establish a beta system of business rules, software and ancillary supporting infrastructure over the next year.

In Q1, Phase II field surveys continued along with data collection and evaluation, and Tier C survey work was completed. The Phase III data integration and asset management plan for Map-21 compliance will also begin before the end of the fiscal year. By July of 2019, Metro plans to deploy a fully built out, data enabled asset management regime. Metro invested \$0.7 million toward this effort during the quarter.



## Appendices

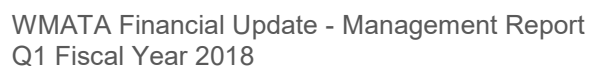
### Appendix I: Operating Financials



## OPERATING FINANCIALS

1st Quarter FY2018

FIRST QUARTER RESULTS					FISCAL YEAR 2018 Dollars in Millions	YEAR-TO-DATE RESULTS				
Prior Year Actual	Current Year					Prior Year Actual	Current Year			
	Actual	Budget	Variance				Actual	Budget	Variance	
\$132.2	\$138.4	\$139.9	(\$1.5)	-1.1%	Passenger Revenue	\$132.2	\$138.4	\$139.9	(\$1.5)	-1.1%
34.9	33.7	38.1	(4.4)	-11.6%	Metrorail	34.9	33.7	38.1	(4.4)	-11.6%
2.4	2.4	2.5	(0.1)	-3.2%	Metrobus	2.4	2.4	2.5	(0.1)	-3.2%
10.3	10.6	11.0	(0.4)	-3.4%	MetroAccess	10.3	10.6	11.0	(0.4)	-3.4%
\$2.7	\$2.8	\$2.8	0.0	0.0%	Parking	\$2.7	\$2.8	\$2.8	0.0	0.0%
\$182.5	\$187.8	\$194.2	(\$6.4)	-3.3%	D.C. Schools	\$182.5	\$187.8	\$194.2	(\$6.4)	-3.3%
					subtotal					
					Non-Passenger Revenue					
5.5	5.6	5.6	0.0	0.2%	Advertising	5.5	5.6	5.6	0.0	0.2%
1.8	2.2	1.6	0.6	39.3%	Joint Development	1.8	2.2	1.6	0.6	39.3%
4.0	3.9	3.9	0.0	1.0%	Fiber Optic	4.0	3.9	3.9	0.0	1.0%
1.4	1.9	2.8	(0.9)	-33.3%	Other	1.4	1.9	2.8	(0.9)	-33.3%
4.8	4.9	7.0	(2.1)	-29.5%	Reimbursables	4.8	4.9	7.0	(2.1)	-29.5%
\$17.5	\$18.6	\$21.0	(\$2.3)	-11.1%	subtotal	\$17.5	\$18.6	\$21.0	(\$2.3)	-11.1%
\$200.0	\$206.4	\$215.1	(\$8.7)	-4.1%	TOTAL REVENUE	\$200.0	\$206.4	\$215.1	(\$8.7)	-4.1%
\$194.5	\$193.1	\$202.5	\$9.5	4.7%	Salary/Wages	\$194.5	\$193.1	\$202.5	\$9	4.7%
23.3	20.0	20.6	0.6	3.1%	Overtime	23.3	20.0	20.6	0.6	3.1%
102.2	105.2	105.4	0.3	0.3%	Fringe Benefits	102.2	105.2	105.4	0.3	0.3%
59.4	58.0	74.3	16.2	21.9%	Services	59.4	58.0	74.3	16.2	21.9%
29.2	25.8	24.4	(1.4)	-5.6%	Supplies	29.2	25.8	24.4	(1.4)	-5.6%
6.2	6.3	9.1	2.7	30.2%	Fuel (Gas, Diesel, CNG)	6.2	6.3	9.1	2.7	30.2%
11.8	12.2	12.3	0.1	0.5%	Propulsion Power	11.8	12.2	12.3	0.1	0.5%
9.1	8.7	9.7	1.0	10.2%	Utilities	9.1	8.7	9.7	1.0	10.2%
7.0	9.0	10.5	1.4	13.7%	Insurance/Other	7.0	9.0	10.5	1.4	13.7%
(12.7)	(9.1)	(12.3)	(3.2)	25.8%	Capital Indirect Allocation	(12.7)	(9.1)	(12.3)	(3.2)	25.8%
\$429.9	\$429.2	\$456.5	\$27.3	6.0%	TOTAL EXPENSE	\$429.9	\$429.2	\$456.5	\$27.3	6.0%
\$229.9	\$222.8	\$241.4	\$18.6	7.7%	SUBSIDY	\$229.9	\$222.8	\$241.4	\$18.6	7.7%
Favorable/(Unfavorable)					COST RECOVERY RATIO	Favorable/(Unfavorable)				
46.5%	48.1%	47.1%				46.5%	48.1%	47.1%		



## Dollars in Millions

Favorable/(Unfavorable)

Favorable/(Unfavorable)

### COST RECOVERY RATIO

63%      67%      66%



**METROBUS**  
**Operating Financials**  
**September-17**  
**FISCAL YEAR 2018**  
Dollars in Millions

**FIRST QUARTER RESULTS**

Prior Year Actual	Current Year		
	Actual	Budget	Variance

\$34.9	\$33.7	\$38.1	(\$4.4)	-12%
1.4	2.1	2.1	0.0	0%
3.7	3.8	3.8	0.0	0%
0.1	1.0	1.4	(0.4)	-31%
<b>\$40.1</b>	<b>\$40.5</b>	<b>\$45.4</b>	<b>(\$4.8)</b>	<b>-11%</b>

**REVENUES:**

Passenger Fares  
D.C. Schools  
Advertising  
Other

\$77.3	\$77.6	\$83.5	\$5.8	7%
9.8	9.7	9.4	(0.3)	-3%
39.1	42.7	44.8	2.1	5%
10.7	9.9	15.7	5.8	37%
8.9	10.5	9.7	(0.8)	-8%
4.8	4.9	6.6	1.8	26%
1.5	1.6	3.8	2.2	59%
(1.3)	(0.5)	(0.2)	0.4	-190%
<b>\$150.9</b>	<b>\$156.4</b>	<b>\$173.2</b>	<b>\$16.9</b>	<b>10%</b>

**EXPENSES:**

Salary/Wages  
Overtime  
Fringe Benefits  
Services  
Supplies  
Fuel (Gas, Diesel, CNG)  
Utilities & Propulsion  
Insurance/Other

<b>\$110.8</b>	<b>\$115.8</b>	<b>\$127.9</b>	<b>\$12.0</b>	<b>9%</b>
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**SUBSIDY**

Favorable/(Unfavorable)

27% 26% 26%

**COST RECOVERY RATIO**

**YEAR-TO-DATE RESULTS**

Prior Year Actual	Current Year		
	Actual	Budget	Variance

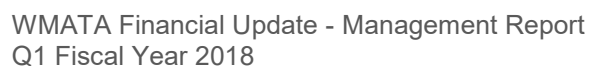
\$34.9	\$33.7	\$38.1	(\$4.4)	-12%
1.4	2.1	2.1	0.0	0%
3.7	3.8	3.8	0.0	0%
0.1	1.0	1.4	(0.4)	-31%
<b>\$40.1</b>	<b>\$40.5</b>	<b>\$45.4</b>	<b>(\$4.8)</b>	<b>-11%</b>

\$77.3	\$77.6	\$83.5	\$5.8	7%
9.8	9.7	9.4	(0.3)	-3%
39.1	42.7	44.8	2.1	5%
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<b>\$150.9</b>	<b>\$156.4</b>	<b>\$173.2</b>	<b>\$16.9</b>	<b>10%</b>

<b>\$110.8</b>	<b>\$115.8</b>	<b>\$127.9</b>	<b>\$12.0</b>	<b>9%</b>
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Favorable/(Unfavorable)

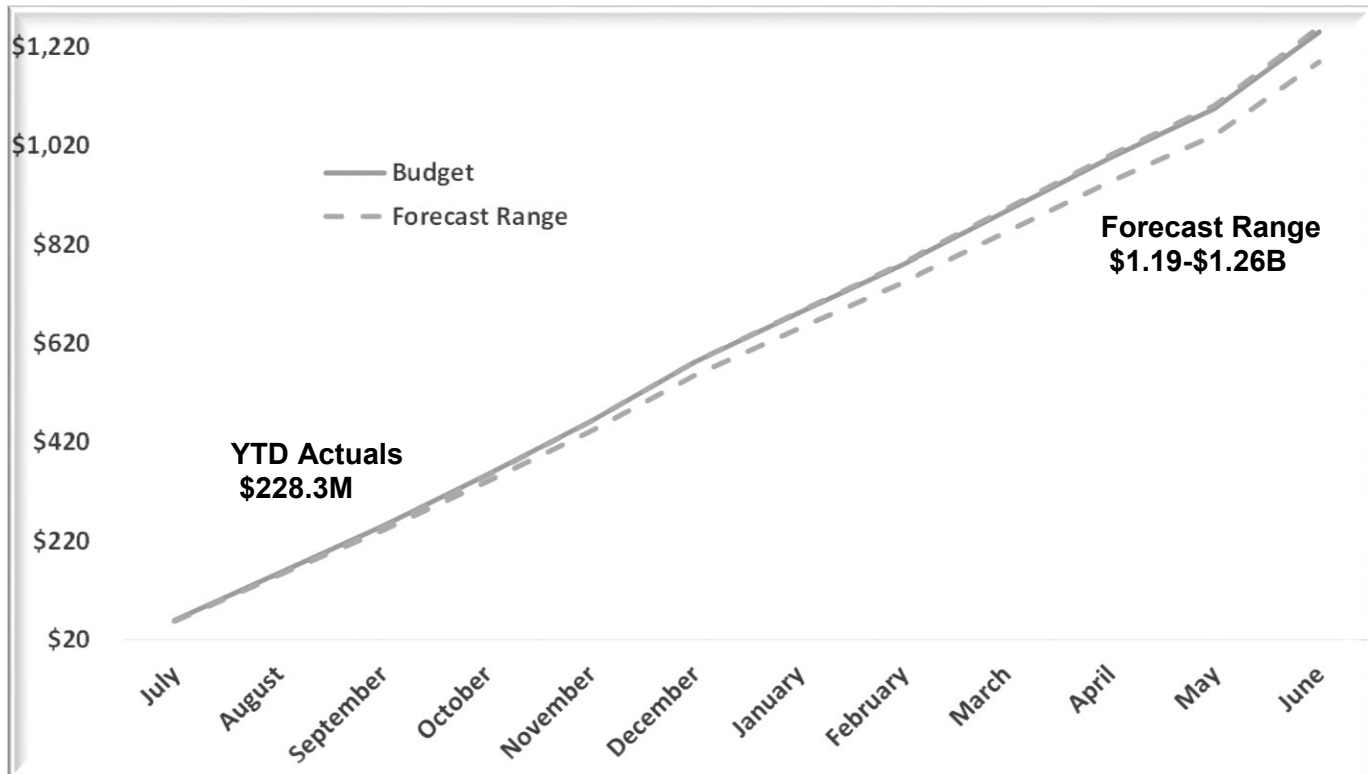
27% 26% 26%



## Dollars in Millions

29

## Appendix II: Capital Financials



## Capital Program Summary by Project

### Washington Metropolitan Area Transit Authority Capital Program Financials by Project Fiscal Year 2018 - September 2017

<i>\$ in millions</i>	<b>\$1.250B</b>	<b>\$1.250B</b>			
<b>Investment by Program</b>	<b>FY2018 Board Approved</b>	<b>FY2018 Current Budget</b>	<b>FY2018 Q1 Actuals</b>	<b>Remaining Budget</b>	<b>Expend %</b>
2000/3000 Series Rail Car Replacement	-	\$1.2	\$0.1	\$1.1	11%
7000 Series Rail Car Procurement	247.3	247.3	-8.1	255.4	-3%
Dulles Railcars	0.4	0.4	-	0.4	0%
Dulles Phase2 Rail Vehicles	99.4	99.3	81.2	18.1	82%
<b>Railcar Acquisition</b>	<b>\$347.1</b>	<b>\$348.2</b>	<b>\$73.4</b>	<b>\$274.8</b>	<b>21%</b>
Railcar Rehabilitation Program	72.3	55.9	11.4	44.5	20%
Rail Car Safety & Reliability Enhancements	4.7	4.7	0.5	4.2	10%
Railcar Preventive Maintenance	60.1	60.1	13.0	47.1	22%
Repair of Damaged Railcars	0.8	0.8	0.0	0.8	5%
D&E Railcar Maintenance/Overhaul	0.1	0.1	-	0.1	0%
<b>Railcar Maintenance/Overhaul</b>	<b>\$138.0</b>	<b>\$121.6</b>	<b>\$25.0</b>	<b>\$96.7</b>	<b>21%</b>
Rail Yard Facility Repairs	26.5	26.5	7.3	19.2	28%
Rail Yard Hardening and Bus Security	5.1	5.1	0.4	4.7	7%
7000 Series Rail Car HVAC Maintenance Facility	2.5	2.5	0.4	2.1	16%
Relocation of Maintenance Departments from Rail Yards	4.6	4.6	0.1	4.5	1%
D&E Rail Yard Improvements	4.0	1.3	-	1.3	0%
<b>Railcar Maintenance Facilities</b>	<b>\$42.7</b>	<b>\$40.0</b>	<b>\$8.1</b>	<b>\$31.9</b>	<b>20%</b>
<b>Railcar Investments</b>	<b>\$ 527.8</b>	<b>\$ 509.8</b>	<b>\$ 106.5</b>	<b>\$ 403.3</b>	<b>21%</b>



**Washington Metropolitan Area Transit Authority  
Capital Program Financials by Project  
Fiscal Year 2018 - September 2017**

*\$ in millions*

	\$1.250B	\$1.250B			
Investment by Program	FY2018 Board Approved	FY2018 Current Budget	FY2018 Q1 Actuals	Remaining Budget	Expend %
Rail Power System Upgrades	17.3	17.1	3.9	13.2	23%
AC Power Systems State of Good Repair	6.2	6.2	0.6	5.6	10%
Traction Power State of Good Operations	15.2	15.2	2.8	12.4	19%
D&E Power Improvements	-	0.9	-	0.9	0%
<b>Propulsion</b>	<b>\$38.7</b>	<b>\$39.5</b>	<b>\$7.3</b>	<b>\$32.1</b>	<b>19%</b>
Wayside Warning Train Wash	0.5	0.5	0.0	0.5	0%
Radio & Cellular Infrastructure Replacement & Upgrade	47.6	47.6	4.4	43.2	9%
National Transportation Safety Board Recommendations	13.6	13.6	2.3	11.3	17%
Automatic Train Control State of Good Repair	21.9	21.9	3.2	18.7	15%
ETS Infrastructure	2.0	2.0	-	2.0	0%
Track Inspector Location Awareness	2.3	2.3	0.0	2.3	2%
D&E ATC & Comms Impvmnts	2.0	2.0	-	2.0	0%
<b>Signals &amp; Communications</b>	<b>\$90.0</b>	<b>\$90.0</b>	<b>\$10.3</b>	<b>\$79.7</b>	<b>11%</b>
<b>Rail Systems Investments</b>	<b>\$ 128.7</b>	<b>\$ 129.4</b>	<b>\$ 17.6</b>	<b>\$ 111.8</b>	<b>14%</b>

Track Rehabilitation	87.8	87.8	16.7	71.1	19%
Track Maintenance Equipment	1.0	1.0	-	1.0	0%
System-wide Infrastructure Rehabilitation	-	0.0	0.0	0.0	118%
General Engineering	3.7	3.7	0.2	3.4	6%
Emergency Construction	1.5	1.5	0.3	1.2	22%
Tunnel Lighting	5.0	5.0	0.0	5.0	1%
<b>Fixed Rail</b>	<b>\$99.0</b>	<b>\$99.0</b>	<b>\$17.4</b>	<b>\$81.6</b>	<b>18%</b>
Track Structural Rehabilitation	6.5	6.5	3.6	2.9	55%
Bush Hill Aerial Structure	4.2	4.2	-0.1	4.3	-2%
Farragut North Beam Rehabilitation	0.5	0.5	0.0	0.5	8%
Red Line Water Mitigation	-	15.0	6.4	8.6	43%
Edmonston Bridget Project	-	0.1	0.0	0.1	0%
D&E Track Structures Imprvmnts	2.4	1.9	-	1.9	0%
<b>Structures</b>	<b>\$13.6</b>	<b>\$28.1</b>	<b>\$10.0</b>	<b>\$18.2</b>	<b>35%</b>
<b>Track and Structures Rehabilitation Investments</b>	<b>\$ 112.6</b>	<b>\$ 127.1</b>	<b>\$ 27.3</b>	<b>\$ 99.8</b>	<b>22%</b>

Bicycle & Pedestrian Facilities: Capacity Improvements	1.2	1.2	0.1	1.1	7%
Station Rehabilitation Program	10.9	10.9	2.9	8.0	26%
Station Entrance Canopies	8.0	8.0	0.9	7.1	11%
Rhode Island Platform Rehabilitation	2.1	2.1	0.1	2.1	3%
Orange/Blue Line Rehabilitation Stage One	33.3	33.3	10.2	23.1	31%
Parking Garage Rehabilitation	6.0	6.0	0.8	5.2	14%
Metro Center Retail Buildout	-	0.2	-	0.2	0%
Potomac Yard Alt. Analysis	5.3	5.3	0.1	5.3	1%
Purple Line: General	4.0	4.0	0.3	3.8	6%
Union Station Project	-	0.8	-	0.8	0%
Dulles Phase 1	2.7	2.7	0.3	2.4	10%
Dulles Phase 2 Prelim Engineering	5.0	6.0	1.1	4.9	18%
D&E Platform & Structures Improvements	4.6	5.3	0.1	5.3	1%
<b>Platforms &amp; Structures</b>	<b>\$83.3</b>	<b>\$85.9</b>	<b>\$16.7</b>	<b>\$69.1</b>	<b>19%</b>
Elevator Rehabilitation	10.0	10.0	2.5	7.5	25%
Escalator Rehabilitation	5.0	5.0	0.1	5.0	2%
Elevator/Escalator Repairables	10.0	10.0	0.6	9.4	6%
Escalator Replacement	35.5	35.5	7.3	28.2	21%
<b>Vertical Transportation</b>	<b>\$60.5</b>	<b>\$60.5</b>	<b>\$10.5</b>	<b>\$50.0</b>	<b>17%</b>
Regional NextFare System	-	0.4	0.1	0.3	33%
Open Bankcard & AFC System	0.4	0.6	0.0	0.6	4%
Fire Systems	2.9	2.9	0.5	2.4	18%
Station Cooling Program	6.6	6.6	0.8	5.7	13%
Station Lighting Improvements	8.8	8.8	0.4	8.4	4%
Raising Vent Shafts	3.0	3.0	0.4	2.6	13%
Improving Drainage	4.1	4.1	0.7	3.3	18%
Fare Collection Modernization	19.7	8.0	0.8	7.2	10%
Fire Alarm System Upgrade	1.3	1.3	-0.1	1.4	-8%
D&E Station Systems	-	0.3	-	0.3	0%
<b>Station Systems</b>	<b>\$46.7</b>	<b>\$36.0</b>	<b>\$3.7</b>	<b>\$32.3</b>	<b>10%</b>
<b>Stations and Passenger Facilities Investments</b>	<b>\$ 190.5</b>	<b>\$ 182.4</b>	<b>\$ 30.9</b>	<b>\$ 151.5</b>	<b>17%</b>



**Washington Metropolitan Area Transit Authority  
Capital Program Financials by Project  
Fiscal Year 2018 - September 2017**

<i>\$ in millions</i>	<b>\$1.250B</b>	<b>\$1.250B</b>			
<b>Investment by Program</b>	<b>FY2018 Board Approved</b>	<b>FY2018 Current Budget</b>	<b>FY2018 Q1 Actuals</b>	<b>Remaining Budget</b>	<b>Expend %</b>
Bus Replacement	63.0	63.0	-0.2	63.2	0%
MetroAccess Fleet Replacement	14.8	14.8	0.1	14.7	1%
<b>Bus and Paratransit Acquisition</b>	<b>\$77.8</b>	<b>\$77.8</b>	<b>\$0.0</b>	<b>\$77.9</b>	<b>0%</b>
Automatic Vehicle Location Equipment	0.3	0.3	0.0	0.3	7%
Bus Repair Equipment	3.9	3.9	0.6	3.3	16%
Bus Rehabilitation Program	60.3	55.8	11.3	44.6	20%
Bus Camera Installation & Replacement	2.8	2.8	-	2.8	0%
<b>Bus Maintenance/Overhaul</b>	<b>\$67.3</b>	<b>\$62.8</b>	<b>\$11.9</b>	<b>\$50.9</b>	<b>19%</b>
Bladensburg Shop CNG Equipment	2.0	2.0	0.0	2.0	1%
Andrews Federal Center Bus Garage	44.5	44.5	19.2	25.3	43%
Cinder Bed Road Bus Garage	4.5	8.4	1.8	6.6	22%
Shepherd Parkway Bus Facility	5.3	5.3	-	5.3	0%
D&E Bus Maint. Facilities	2.1	1.9	-	1.9	0%
<b>Bus Maintenance Facilities</b>	<b>\$58.4</b>	<b>\$62.1</b>	<b>\$21.2</b>	<b>\$40.9</b>	<b>34%</b>
Bus Priority Corridor Network	1.3	1.3	0.2	1.1	16%
Bus Planning	0.6	0.6	0.1	0.6	8%
Bus Customer Facility Improvements	1.6	1.6	0.0	1.5	3%
Traffic Signal Prioritization	2.9	2.0	-	2.0	0%
Chevy Chase Bus Loop	-	0.8	-	-	0%
King Street Station Bus Loop	1.3	1.3	-0.1	1.3	-5%
<b>Bus Passenger Facilities/Systems</b>	<b>\$7.6</b>	<b>\$7.6</b>	<b>\$0.2</b>	<b>\$6.5</b>	<b>3%</b>
<b>Bus and Paratransit Investments</b>	<b>\$ 211.1</b>	<b>\$ 210.3</b>	<b>\$ 33.3</b>	<b>\$ 176.2</b>	<b>16%</b>
Bus & Rail Asset Management Software	6.6	6.6	0.8	5.8	13%
Bus Operations Support Software	2.0	1.6	0.0	1.6	3%
IT Capital Prog Business Process Reengineering & Prog Support	4.3	2.5	0.4	2.1	15%
Data Centers and Infrastructures	4.8	6.3	0.2	6.1	3%
Document Management System	0.2	0.2	0.1	0.1	44%
Enterprise Geographic Information System	0.6	0.6	0.2	0.4	27%
Sensitive Data Protection Technology	0.3	0.3	-	0.3	0%
Management Support Software	6.8	6.8	2.3	4.4	35%
Police Dispatch and Records Management	4.7	3.0	0.4	2.6	14%
Network and Communications	8.7	15.8	2.4	13.4	15%
Customer Electronic Communications & Outreach	1.9	2.3	0.4	1.9	17%
Rail Operations Support Software	3.0	3.5	0.4	3.1	11%
Data Governance and Business Intelligence	1.3	1.3	0.2	1.0	18%
Safety Measurement System	2.2	2.2	0.5	1.7	21%
Rail Scheduling System Upgrade	1.3	2.3	0.0	2.3	1%
Time Keeping	6.5	6.5	1.5	5.0	23%
D&E IT	-	4.6	0.2	4.4	4%
<b>IT</b>	<b>\$55.1</b>	<b>\$66.4</b>	<b>\$10.2</b>	<b>\$56.2</b>	<b>15%</b>
Support Equipment - MTPD	1.0	1.0	0.0	1.0	5%
<b>MTPD</b>	<b>\$1.0</b>	<b>\$1.0</b>	<b>\$0.0</b>	<b>\$1.0</b>	<b>5%</b>
Service Vehicle Replacement & Leasing	1.5	2.0	-	2.0	0%
Environmental Compliance Project	1.1	1.1	0.1	1.0	7%
Underground Storage Tank Replacement	2.8	2.0	0.2	1.8	10%
Materials Handling Equipment	0.5	0.5	0.0	0.5	5%
Core & System Capacity Project Development	0.8	1.0	0.1	0.9	7%
Building Infrastructure & Systems Renewal	2.0	2.0	0.0	2.0	-1%
Financial Plan/Systemwide Upgrade	1.2	1.2	0.0	1.1	3%
Credit Facility	1.0	1.0	0.4	0.6	36%
Transit Asset Inventory	3.3	3.3	0.7	2.5	23%
Roof Rehabilitation and Replacement	4.0	4.0	0.6	3.4	15%
Pollution Prevention - Track	0.7	0.7	0.0	0.7	-6%
Stormwater Facility Assessment	0.8	1.2	0.0	1.1	0%
Sustainability Investments - Pilot Program	0.7	0.7	0.1	0.6	13%
Planning Support DC	1.0	1.0	0.1	0.9	7%
Planning Support for MD	1.0	1.0	0.1	0.9	7%
Planning Support for VA	1.0	1.0	0.2	0.8	18%
<b>Support Equipment/Services</b>	<b>\$23.3</b>	<b>\$23.6</b>	<b>\$2.4</b>	<b>\$21.2</b>	<b>10%</b>
<b>Business Support Investments</b>	<b>\$ 79.4</b>	<b>\$ 91.0</b>	<b>\$ 12.6</b>	<b>\$ 78.3</b>	<b>14%</b>
<b>Total Capital Programs</b>	<b>\$ 1,250.0</b>	<b>\$ 1,250.0</b>	<b>\$ 228.3</b>	<b>\$ 1,020.9</b>	<b>18%</b>





## Capital Project Reprogramming Summary

Washington Metropolitan Area Transit Authority  
Capital Improvement Program - Reprogramming Actions  
Fiscal Year 2018 - First Quarter

<i>\$ in millions</i>				
	\$1,250B		\$1,250B	
Program	FY 2018 Board Approved	Reprogramming Actions	FY 2018 Current Budget	Comments
<b>Railcar Acquisition</b>	<b>\$347.1</b>	<b>\$1.1</b>	<b>\$348.2</b>	\$1.2M added to 2K/3K Series Rail Car Replacement to accelerate development of 8K series railcars
<b>Railcar Maintenance/Overhaul</b>	<b>\$138.0</b>	<b>(\$16.4)</b>	<b>\$121.6</b>	Management decision to de-prioritized Railcar Rehab Program in favor of Red Line Water Mitigation and other priority projects
<b>Railcar Maintenance Facilities</b>	<b>\$42.7</b>	<b>(\$2.7)</b>	<b>\$40.0</b>	Funds transferred from D&E Rail Yard Improvements to fund time-sensitive PeopleSoft update
<b>Railcar Investments</b>	<b>\$ 527.8</b>	<b>(\$18.0)</b>	<b>\$ 509.8</b>	
<b>Propulsion</b>	<b>\$38.7</b>	<b>\$0.8</b>	<b>\$39.5</b>	Funds reprogrammed from Fare Collection Modernization (facing protracted contracting process) to fund right-of-way monitoring software and a pilot of a new red tag switching process
<b>Signals &amp; Communications</b>	<b>\$90.0</b>	<b>\$0.0</b>	<b>\$90.0</b>	
<b>Rail Systems Investments</b>	<b>\$ 128.7</b>	<b>\$ 0.8</b>	<b>\$ 129.4</b>	
<b>Fixed Rail</b>	<b>\$99.0</b>	<b>\$0.0</b>	<b>\$99.0</b>	
<b>Structures</b>	<b>\$13.6</b>	<b>\$14.6</b>	<b>\$28.1</b>	Management decision to prioritize Red Line Water Mitigation with funds from Rail Rehab, Bus Rehab, and Fare Collection modernization
<b>Track and Structures Rehabilitation Investments</b>	<b>\$ 112.6</b>	<b>\$ 14.6</b>	<b>\$ 127.1</b>	
<b>Platforms &amp; Structures</b>	<b>\$83.3</b>	<b>\$2.6</b>	<b>\$85.9</b>	Funds added for Dulles Phase 2 Engineering, Metro Center Retail Buildout, and D&E Platform & Structures
<b>Vertical Transportation</b>	<b>\$60.5</b>	<b>\$0.0</b>	<b>\$60.5</b>	
<b>Station Systems</b>	<b>\$46.7</b>	<b>(\$10.7)</b>	<b>\$36.0</b>	Schedule change in Fare Collection Modernization, change in approach to solution
<b>Stations and Passenger Facilities Investments</b>	<b>\$ 190.5</b>	<b>(\$8.1)</b>	<b>\$ 182.4</b>	
<b>Bus and Paratransit Acquisition</b>	<b>\$77.8</b>	<b>\$0.0</b>	<b>\$77.8</b>	
<b>Bus Maintenance/Overhaul</b>	<b>\$67.3</b>	<b>-\$4.5</b>	<b>\$62.8</b>	Bus Rehab project progressing normally but budget determined to be in excess of FY2018 requirement.
<b>Bus Maintenance Facilities</b>	<b>\$58.4</b>	<b>\$3.7</b>	<b>\$62.1</b>	Work at Cinder Bed Rd Garage was delayed from FY2017 to FY2018, necessitating additional funds; Fare Collection Modernization contract process expected to be lengthy, freeing funds for reprogramming
<b>Bus Passenger Facilities/Systems</b>	<b>\$7.6</b>	<b>\$0.0</b>	<b>\$7.6</b>	
<b>Bus and Paratransit Investments</b>	<b>\$ 211.1</b>	<b>(\$0.8)</b>	<b>\$ 210.3</b>	
<b>IT</b>	<b>\$55.1</b>	<b>\$11.3</b>	<b>\$66.4</b>	Funds transferred to support pressing PeopleSoft upgrade and for replacement of network switches (which are beyond their intended life) in all stations, garages and administration buildings
<b>MTPD</b>	<b>\$1.0</b>	<b>\$0.0</b>	<b>\$1.0</b>	
<b>Support Equipment/Services</b>	<b>\$23.3</b>	<b>\$0.3</b>	<b>\$23.6</b>	Purchase of 4 Emergency Response Vehicles planned for FY2017 slipped to FY2018, necessitating additional funds
<b>Business Support Investments</b>	<b>\$ 79.4</b>	<b>\$ 11.6</b>	<b>\$ 91.0</b>	
<b>Total Capital Programs</b>	<b>\$ 1,250.0</b>	<b>-</b>	<b>\$ 1,250.0</b>	



## Appendix III: FTA Grant Status

### A. Active Grants

Active Federal Transit Administration Grants as of 9/30/2017					
Grant No.	Grant Description	Award Date	Federal Award	Drawn	Balance
DC-95-X004	VA CMAQ Bus Purchase/ VA Projects	9/3/2008	\$4.1	\$4.0	\$0.1
DC-04-0007	FY10 SGR Asset Management	7/11/2011	\$3.9	\$2.1	\$1.8
DC-57-X007	New Freedom Bus Stop Improvements	2/13/2012	\$1.0	\$0.1	\$0.9
DC-26-7363	Transit Works: 2012 Workforce Grant	4/30/2014	\$0.8	\$0.3	\$0.5
DC-75-0004	FFY2013 PRIIA Appropriation	6/5/2014	\$142.2	\$142.2	\$0.0
DC-04-0008	Bus Livability - Bus Stop Improvements	9/11/2014	\$1.5	\$0.0	\$1.5
DC-90-X088	FFY 13 and 14 5307/5340 Formula Grant	1/16/2015	\$240.9	\$240.9	\$0.0
DC-75-0005	FFY 14 PRIIA Appropriation	4/8/2015	\$148.5	\$145.2	\$3.3
DC-44-X001	FFY 13 Hurricane Sandy Resilience	4/10/2015	\$21.0	\$0.5	\$20.5
DC-90-X089	FFY 15 5307/5340 Formula Grant	9/17/2015	\$146.7	\$133.8	\$12.9
DC-54-0002	FFY 15 SOGR	9/17/2015	\$131.5	\$118.2	\$13.3
DC-75-0006	FFY 15 PRIIA Appropriation	9/23/2015	\$148.5	\$137.5	\$11.0
DC-2016-008	FY2016 5307/5340 Formula Funding	7/29/2016	\$147.0	\$116.7	\$30.3
DC-2016-009	FFY2016 5337 State of Good Repair	8/11/2016	\$147.2	\$123.6	\$23.6
DC-2016-010	FFY2016 PRIIA Appropriation	8/19/2016	\$148.5	\$110.0	\$38.5
DC-2017-004	FFY2017 5339 Bus Program	4/25/2017	\$8.4	\$0	\$8.4
DC-2017-005	WMATA Safety Preventative Maintenance	5/12/2017	\$163.3	\$124.5	\$38.8
DC-2017-006	FFY2017 PRIIA Appropriation	5/23/2017	\$148.5	\$2.3	\$146.2
DC-2017-007	FFY2017 5337 State of Good Repair	5/23/2017	\$145.5	\$16.3	\$129.2
DC-2017-009	VA RSTP Replacement Buses	6/05/2017	\$0.6	\$0	\$0.6
DC-2017-010	Section 5310 Metro Access Fleet Replacement	6/09/2017	\$0.5	\$0	\$0.5
DC-2017-011	Track Inspector Location Awareness With Enhanced Transit Worker Protection	8/15/2017	\$1.9	\$0	\$1.9
DC-2017-014	FFY2017 5307/5340 Formula Funding	9/21/2017	\$151.0	\$2.1	\$148.9
<b>Total</b>			<b>\$2,053.0</b>	<b>\$1,420.3</b>	<b>\$632.7</b>



## B. Closed Grants

Federal Transit Administration Grants Closed During FY2015/FY2016/FY2017 as of 09/30/2017				
Grant No.	Grant Description	Award Date	Federal Award	Closed Date
DC-95-X012	VA FFY09 CMAQ Bus Purchase	9/11/2012	\$3.9	4/30/2015
DC-26-7209	Energy Storage Demonstration Grant	6/22/2009	\$0.3	1/05/2017
DC-05-0009	FFY 2007 5309 Fixed Guideway	9/24/2007	\$81.2	6/07/2017
DC-05-0011	FFY 2009 5309 Fixed Guideway	5/04/2010	\$100.5	6/14/2017
DC-05-0012	FFY 2010 5309 Fixed Guideway	6/01/2011	\$101.3	6/05/2017
DC-05-0013	FFY 2011 5309 Fixed Guideway	3/5/2012	\$101.2	6/01/2017
DC-05-0014	FFY 2012 5309 Fixed Guideway	3/28/2013	\$97.3	5/18/2017
DC-2016-007	FFY2016 5339 Bus Program	7/29/2016	\$8.4	6/14/2017
DC-34-0001	FFY 2013/FY2014 5339 Bus	1/16/2015	\$19.5	6/08/2017
DC-34-0002	FFY 2015 5339 Bus	9/17/2015	\$9.7	6/14/2017
DC-54-0001	FFY 2013/FFY2014 5337 SOGR	2/13/2015	\$161.2	6/07/2017
DC-75-0001	FFY 2010 PRIIA Appropriation	12/31/2010	\$150.0	6/05/2017
DC-75-0002	FFY 2011 PRIIA Appropriation	6/27/2012	\$149.7	6/07/2017
DC-75-0003	FFY 2012 PRIIA Appropriation	3/26/2013	\$150.0	6/07/2017
DC-90-X083	FFY 2009 5307/4340 Formula Funds	5/04/2010	\$138.4	6/06/2017
DC-90-X085	FFY 2010 5307/4340 Formula Funds	2/24/2011	\$139.4	6/05/2017
DC-90-X086	FFY 2011 5307/4340 Formula Funds	9/23/2011	\$141.8	6/05/2017
DC-90-X087	FFY 2012 5307/4340 Formula Funds	4/1/2013	\$140.7	6/05/2017
DC-03-0039	Largo Extension FFGA – FY10 Appropriation	12/15/2000	\$358.2	7/07/2017
DC-95-X015	VA CMAQ/RSTP Replacement Buses	11/25/2015	\$27.9	7/07/2017
Total			\$2,080.6	

## C. Current & Planned Grant Applications

Pending Federal Transit Administration Grant Applications as of 9/30/2017		
Grant Description	September 30, 2017 Status	Federal Award
FFY2017 VA CMAQ/RSPT	Under FTA review	\$5.5
Total		\$5.5

## Appendix IV: Glossary of Acronyms

### A

A&E – Architecture and engineering  
AA – Alternatives analysis  
AAI-CAF – (Spanish acronym) manufacturer of the 5000 Series rail cars  
AC – Air conditioning or alternating current  
ACI – Automatic car transponder identification system  
ADA – Americans with Disabilities Act  
AFC – Automatic fare collection  
AGT – Automated guide-way transit  
AIM – Advanced information management  
AIT – Arts in Transit  
AP – Accounts Payable  
APS – Auxiliary power supply  
APTA – American Public Transportation Association  
AQAP – Office of Quality Assurance Quality & Performance  
ARS – Adopted regional system  
AST – Above-ground storage tank  
ATC – Automatic train control  
ATO – Automated train operation  
ATD – Advanced technology diesel  
ATS – Automatic transfer switch  
AVL – Automatic vehicle locator  
AVR – Automatic voltage regulator  
AWP – Annual work plan

### B

BAFO – Best and final offer  
BDA – Bi-directional amplifiers  
BEAC – Budget estimate at completion  
BPR – Business process re-engineering

BRT – Bus rapid transit

### C

CAD – Computer-aided dispatch  
CADD – Computer-aided design and drafting  
CAFE – Computer authorization for expenditure workflow system  
CAFR – Comprehensive annual financial report  
CAP – Corrective Action Plan  
CCP – Communications control panel  
CCTV – Closed-circuit television  
CDR – Conceptual design review  
CFA – Capital Funding Agreement  
CIP – Capital improvement project  
CIWS – Customer information web services  
CM – Construction manager  
CMAA – Construction Management Association of America  
CMAQ – Congestion mitigation and air quality  
CMC – Construction management consultant  
CMU – Concrete masonry unit  
CNG – Compressed natural gas  
COG – (Metropolitan Washington) Council of Governments  
COLA – Cost of living adjustment  
COTS – Commercial off the shelf  
CPOS – Compact point of sale  
CRCS – Comprehensive radio communications system  
CSP – Construction safety program  
CTB – (Virginia) Commonwealth Transportation Board  
CTF – Carmen Turner Facility



## **D**

D/B – Design/build

D/B/B – Design/bid/build

DBE – Disadvantaged business enterprise

DBFM – Dynamic brake feedback module

DCI – Data center & infrastructure

DCU – Door control unit

DEIS – Draft environmental impact statement

DPS – Drainage pumping station

DRB – Dispute Review Board

DRPT – (Virginia) Department of Rail and Public  
Transportation

DTP – Dulles Transit Partners, LLC

## **E**

E&O – Errors and omissions

EA – Environmental assessment

EDADS – Enhanced data acquisition and display  
system

EIS – Environmental impact statement

EMI – Engineering modification instructions *or*  
electro-magnetic interference

EMIH – Environmental management & industrial  
health

EPA – Environmental Protection Agency

EPM – Enterprise performance management

ERRP – Emergency rail rehabilitation program

ETEC – Emergency tunnel evacuation carts

ETC – Estimate to complete

EV – Earned value

## **F**

FAI – First article inspection

FAST – Fixing America's Surface Transportation Act

FCCI – First car configuration inspection

FDR – Final design review

FEIS – Final environmental impact statement

FFGA – Full funding grant agreement

FFP – Firm-fixed price

FHWA – Federal Highway Administration

FIA – Fire and intrusion alarm

FMO – Financial management oversight

F/O – Fiber optic

FRA – Federal Railroad Administration

FTE – Full time equivalent

FTA – Federal Transit Administration

FUA – First unit accepted

## **G**

GAAP – Generally accepted accounting principles

GEC – General engineering consultant

GFOA – Government Finance Officers Association

GIS – Geographic information system

GMP – Guaranteed maximum price

GOTRS – General order track rights system

GPS – Global positioning system

## **H**

HCM – Human capital management

HEDS – Hybrid enterprise document management  
system

HEOP – Heavy equipment overhaul program

HVAC – Heating, ventilation, and air conditioning

## **I**

IAM – Identity and access management

IAWP – Integrated annual work plan

ICCA – Interim Capital Contributions Agreement

ICE – Independent cost estimate

IFC – Issued for construction

IFO – Integrated finance organization - finance  
project

IFP – Integrated financial plan

IGF – Internally generated funds

IRP – Infrastructure renewal program

ITS – Intelligent transportation systems



## **J**

JARC – Job access/reverse commute

JCC – Jurisdictional Coordinating Committee

JGB – Jackson Graham Building

JOC – Job order contracting program (See Also:

MATOC)

## **L**

LBT – Large bore tunnel

LD – Liquidated damages

LNTP – Limited notice to proceed

LPA – Locally preferred alternative

LRT – Light rail transit

LRV – Light rail vehicle

LUA – Last unit accepted

## **M**

MAP-21 – Moving Ahead for Progress in the 21st Century Act

MARC – Maryland Area Regional Commuter Train

MATOC – Multiple award task order contract

MCC – Motor control center

MDBD – Mean distance between delays

MDBF – Mean distance between failures

MDBS – Mean distance between service interruptions

ME – Month-end

MEAD – Metro electronic action document

MIS – Major investment study

MMFA – Metro Matters Funding Agreement

MMMS – Material maintenance and management system

MMP – Metro matters program

MMU – Mobile maintenance unit

MOD – (Contract) Modification

MOS – Minimum operable segment

MPS – Master program schedule

MTA – Maryland Transit Administration

MTPD – Metro Transit Police Department

MTTR – Mean time to repair

MWAA – Metropolitan Washington Airports Authority

MWCOG – Metropolitan Washington Council of Governments

## **N**

NCPC – National Capital Planning Commission

NEPA – National Environmental Policy Act

NSP – New Starts Project

NTSB – National Transportation Safety Board

NTD – National transit database

NTE – Not to exceed

NTI – National Transit Institute

NTP – Notice to proceed

## **O**

O&M – Operating and maintenance (such as O&M costs)

OCC – Operations Control Center

ODC – Other direct costs

OFS – Order for services

OIG – Office of Inspector General

OTP – On-time performance

OWS – Oil water system

## **P**

PCI – Payment card industry

PCO – Pending (or proposed) change order

PDR – Preliminary design review

PE – Preliminary engineering

P/I – Policy instruction

PIDS – Passenger Information Display System

PLE – Parking lot equipment

PM – Project manager

PMI – Project Management Institute

PMO – Project management oversight



PMOC – Project management oversight contractor  
PMP – Project management plan  
PPE – Personal protective equipment  
PSS – Program Station Stop /Public Safety System

## **Q**

QA – Quality assurance  
QC – Quality control

## **R**

RAC – Riders' Advisory Council  
RCSC – Regional Customer Service Center  
RE – Resident engineer  
RFP – Request for proposal  
RFQ – Request for qualifications  
RMS – Records Management System  
ROCS – Rail Operations Computer System  
ROD – Record of decision /Revenue operations date  
ROW – Right of way  
RTU – Remote terminal unit

## **S**

S&I – Storage/service and inspection  
SAP – System access program /Safety awareness program  
SCI – Substantial completion inspections  
SCP – Safety Certification Program  
SCWG – Safety certification working group  
SEIP – System Expansion and Improvement Program  
SM – Switch machine  
SMADS – Station monitor and display system (fare collection equipment)  
SMS – Safety measurement system  
SOC – Station operator's console  
SOS – Scope of service  
SOW – Scope of work  
STOV – Station over-run

SOA – Safety oversight agency  
SSPP – System safety program plan  
SSPS – System safety program standards  
SSWP – Site specific work plan

## **T**

TBS – Tie breaker station  
TC – Train control  
TCR – Train control room  
TIFIA – Transportation Infrastructure Finance & Innovation Act  
TIIF – Transportation Infrastructure Investment Fund  
TIP – Transportation Improvement Program  
TOC – Tristate Oversight Committee  
TOD – Transit oriented development  
TPSG – Traction power switch gear  
TPSS – Traction power substation  
TSI – Transportation Safety Institute  
TSP – Transit signal priority  
TUN – Temporary user notice

## **U**

UPS – Uninterrupted power supply  
UST – Under-ground storage tank

## **V**

VE – Value engineering  
VMS – Vehicle Management/Monitoring System  
VRE – Virginia Railway Express

## **W**

WBS – Work breakdown structure  
WMATA – Washington Metropolitan Area Transit Authority  
WMS – Warehouse Management System

## **Y**

YE – Year end  
YOE – Year of expenditure  
YTD – Year to date

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## WMATA Offices & Departments

### A

ACCS Access Services, Department of  
ACCT Accounting, Office of  
ADAP ADA Policy and Planning, Office of  
AMA Asset Mission Assurance, Office of  
APPS Application Development &  
Operations  
AQAP Assurance, Quality and  
Performance, Office of  
ATCM ATC Maintenance, Office of

### B

BMNT Bus Maintenance, Office of  
BOCC Bus Operations Communications  
Center  
BPLN Bus Planning, Office of  
BPR Business Process Re-Engineering  
BTRA Bus Transportation, Office of  
BUSV Bus Services, Department of

### C

CENI Chief Engineer Infrastructure Services  
CENV Vehicle Program Services  
CFO Chief Financial Officer  
CHOS Office of the Chief of Staff  
CMNT Rail Car Maintenance  
CMO Chief Mechanical Officer, Office of  
COO Chief Operating Officer, Office of  
COUN General Counsel  
CPDO Capital Program Delivery, Office of  
CPMO Capital Program Management Office  
CPO Performance, Office of  
CRSV Creative Services

CSCM Customer Service, Communications  
and Marketing, Department of  
CSVC Customer Service, Office of

### D

DCI Data Center & Infrastructure  
DGMO – Deputy General Manager,  
Operations

### E

EAGOV Enterprise Architecture  
Governance, Office of  
ELES Elevators and Escalators, Office of  
ELIG Eligibility Certification and Outreach,  
Office of  
EMIH Environmental Management and  
Industrial Hygiene  
ENG Chief Engineer, Office of  
EREL External Relations, Office of  
EXRL Chief External Relations, Office of

### G

GMGR General Manager  
GOVR Government Relations, Office of

### H

HR Human Resources, Department of  
HRCB HR Compensation and Benefits  
HRIM HR Information Management  
HRTA HR Talent Acquisition

### I

IACO Internal Assurance and Compliance,  
Office of  
IPLN Intermodal Strategic Planning  
IT Information Technology, Department of



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## **L**

LABR Labor Relations

LAND Real Estate and Station Planning,  
Office of

## **M**

MACS MetroAccess Service, Office of

MCAP Major Capital Projects, Office of

MIPN Material & Inventory Planning, Office  
of

MITS IT Security

MKTG Marketing and Advertising, Office of

MOWE Chief Maintenance of Way

Engineering, Office of

MREL Media Relations, Office of

MTPD Metro Transit Police Department

## **N**

NCS Network & Communications

## **O**

OEEEO Equal Employment Opportunity,  
Office of

OEM Emergency Management, Office of

OIG Inspector General, Office of

OMBS Management and Budget Services,  
Office of

OPMS Operations Management Services

## **P**

PARK Parking, Office of

PLAN Planning, Office of

PLNT Plant Maintenance, Office of

PMO Project Management Operations

PRMT Procurement and Materials, Office of

## **Q**

QICO Quality and Internal Compliance  
Operations, Office of

QMA Quality Mission Assurance (QMA)

## **R**

RADS Replication and Digitizing Services

RAIL Rail Services, Department of

RCMP Reliability Centered Maintenance  
Planning, Office of

RISK Risk Management, Office of

ROCC Rail Operations Central Control,  
Office of

ROQT Rail Operations Quality Training

RTRA Rail Transportation, Office of

RTW Return To Work

## **S**

SAFE System Safety and Environmental  
Management, Department of

SBRS SmartBenefits and Retail Sales

SCES Supply Chain Enterprise Services

SECT Board Secretary, Office of

SMNT Systems Maintenance

SRML Storerooms & Material Logistics,  
Office of

SVMT Service Vehicle Maintenance

## **T**

TIMS Transit Infrastructure Maintenance  
Systems

TRES Treasurer, Office of

TRST Track and Structures, Office of

TSMT Technical Skills and Maintenance  
Training