

ENHANCING SAFETY, RELIABILITY AND FINANCIAL RESPONSIBILITY

# FY2018 APPROVED BUDGET

Effective July 1, 2017



Washington Metropolitan Area Transit Authority



# Metro System Map

wmata.com  
Customer Information Service: 202-637-7000  
TTY Phone: 202-962-2033  
Metro Transit Police: 202-962-2121

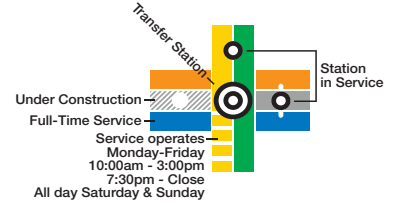
## Legend

- RD** Red Line • Glenmont / Shady Grove
- OR** Orange Line • New Carrollton / Vienna
- BL** Blue Line • Franconia-Springfield / Largo Town Center
- GR** Green Line • Branch Ave / Greenbelt
- YL** Yellow Line • Huntington / Mt Vernon Sq / Fort Totten
- SV** Silver Line • Wiehle-Reston East / Largo Town Center

## Station Features

- Bus to Airport
- Parking
- Hospital
- Airport

## Connecting Rail Systems



Metro is accessible.

N  
Map is not to scale





## **Fiscal Year 2018 Approved Budget**

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*Enhancing Safety, Service Reliability and Financial Responsibility*  
**General Manager's Message**

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Metro's "Reality Check" budget for FY2018 focuses on enhancing system safety and the reliability of rail, bus and paratransit services. With this budget, Metro is aligning the system and its services to what the region can afford,

directing available resources to best serve current riders and continuing to rebuild system infrastructure for improved safety and reliability.

Metro has taken important first steps, including the conclusion of SafeTrack, expedited delivery of the new 7000 Series railcars, and timely completion of our most recent financial audit. The FY2018 budget provides the resources to continue our Back2Good program with a focus on safety improvements, including a new preventive maintenance program to improve track safety and reliability, a Railcar Get Well Plan to keep our trains operating safely and on time, and initiatives to improve financial management and accountability.

While developing a balanced budget for FY2018, Metro faced major challenges mainly due to significantly reduced fare revenues resulting from declining ridership, as well as increasing costs to provide safe and reliable rail, bus and paratransit service. This budget impacts customers through service adjustments and fare increases and includes substantial cuts to management and labor costs through a significant reduction in Metro employee headcount. It also demands improved productivity from our personnel and contractors.

The budget includes \$1.25 billion for FY2018 capital investments to support Metro's safety and reliability improvements. Capital investment priorities include the acquisition of new 7000 Series railcars, construction of radio and wireless communications infrastructure, replacement of old buses and paratransit vehicles, rehabilitation and maintenance of existing railcars and buses to improve and maintain service reliability, and continued investment in rail, rail stations and bus system infrastructure to improve safety and to address state of good repair backlogs.

Metro represents a \$40 billion asset and enterprise that has generated returns on regional and national investments through mobility, traffic congestion relief, improved air quality and economic development. However, at more than 40 years old, customers are feeling the effects of an aging system and decades of deferred maintenance. Metro cannot deliver on this transformation alone. With only one more year of committed capital funding, Metro needs \$15.5 billion over the next 10 years to remain safe and reliable.

I look forward to working with Metro employees, our customers, the Board of Directors, and our jurisdictional partners to continue enhancing Metro's safety, service reliability and financial responsibility.

Paul J. Wiedefeld  
General Manager/Chief Executive Officer

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## Board of Directors

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The Washington Metropolitan Area Transit Authority is governed by a 16-member Board of Directors composed of eight Principal and eight Alternate members. The District of Columbia, Maryland, Virginia and the federal government each appoint two Principal and two Alternate members. Below are the members currently serving on the Board.



### **Jack Evans, Chair**

Appointed to the Board as a Principal Director in January 2015 representing the District of Columbia. Mr. Evans has served on the Council of the District of Columbia (Ward 2) since 1991.



### **Keturah D. Harley, First Vice Chair**

Appointed to the Board as a Principal Director in April 2015 representing the State of Maryland. Ms. Harley has worked in the federal government as an Appellate Litigation Attorney at the U.S. Department of Veterans Affairs and with the District of Columbia Public Employee Relations Board (PERB), where she served as General Counsel and Executive Director (Acting).



### **Jim Corcoran, Second Vice Chair**

Appointed to the Board as a Principal Director in February 2015 representing the Commonwealth of Virginia. Since April 2010, Mr. Corcoran has served as President and CEO of the Fairfax County Chamber of Commerce.



### **David L. Strickland**

Appointed to the Board as Principal Director in June 2016 representing the Federal Government. Mr. Strickland served as the fourteenth Administrator of the National Highway Traffic Safety Administration (NHTSA). Prior to his appointment at NHTSA, Mr. Strickland spent 8 years on the Staff of the U.S. Senate Committee on Commerce, Science and Transportation as Democratic Senior Counsel.



### **Corbett A. Price**

Appointed to the Board as a Principal Director in March 2015 representing the District of Columbia. Mr. Price currently serves as Chairman and CEO of Quantix Health Capital, LLC.



**Michael Goldman**

Appointed to the Board as a Principal Director in June 2013 representing the State of Maryland. Mr. Goldman has practiced in the areas of international, antitrust and transportation law.



**Catherine Hudgins**

Appointed to the Board as a Principal Director in 2008 representing the State of Virginia. Mrs. Hudgins served as Chair in both 2011 and 2012. She joined the Board in January 2004 as an Alternate Director. She was first elected to the Fairfax County Board of Supervisors in November 1999 and is currently serving her third term.



**Carol Carmody**

Appointed to the Board as a Principal Director in June 2016 representing the Federal Government. Ms. Carmody served for five years as a member of the National Transportation Safety Board, was appointed Vice Chairman by President Clinton and served twice as Acting Chairman. Her government career included the Senate Commerce Committee, and Departments of State and Transportation.



**Tom Bulger**

Appointed to the Board as an Alternate Director in July 2011 representing the District of Columbia. Mr. Bulger is President of Government Relations Inc., and has been a federal advocate and policy consultant.



**Malcolm Augustine**

Appointed to the Board as an Alternate Director in January 2016 representing Prince George's County, Maryland. Mr. Augustine is a multi-channel marketing, sales, analytics and customer relationship executive in the direct marketing sector with expertise in higher education, non-profit, and healthcare at Intra Mail Network.



**Christian Dorsey**

Appointed to the Board as an Alternate Director in January 2016 representing Arlington County, Virginia. Mr. Dorsey was elected to the Arlington County Board in November of 2015. He also represents Arlington on the board of the Metropolitan Washington Council of Governments and serves as one of three Arlington commissioners of The Northern Virginia Transportation Commission (NVTC).



**Robert Lauby**

Appointed to the Board as an Alternate Director in June 2016 representing the Federal Government. Mr. Lauby has 37 years of railroad and rail transit experience involving safety, security, accident investigation, project management, project engineering, manufacturing, and vehicle maintenance. He currently serves as Associate Administrator for Railroad Safety and Chief Safety Officer with the Federal Railroad Administration (FRA).



**Leif A. Dormsjo**

Appointed to the Board as an Alternate Director in March 2015 representing the District of Columbia. Mr. Dormsjo was confirmed the Director of the District Department of Transportation (DDOT) in 2015 after serving as an Alternate Director. He previously served as Deputy Secretary of the Maryland Department of Transportation (MDOT).



**Kathy Porter**

Appointed to the Board as an Alternate Director in January 2011 representing Montgomery County, Maryland. Ms. Porter was Mayor of the City of Takoma Park, Maryland, from 1997 to 2007.



**Paul C. Smedberg**

Appointed to the Board as an Alternate Director in January 2016 representing the Commonwealth of Virginia. Mr. Smedberg was first elected to the Alexandria City Council in 2003 and was re-elected for a fifth term in November of 2015. He is currently the Director of Advocacy & Government Affairs at the American Academy of Physical Medicine & Rehabilitation.



**Anthony E. Costa**

Appointed to the Board as an Alternate Director in July 2014 representing the federal government. Mr. Costa is currently Senior Advisor to the Administrator of the General Services Administration (GSA) and is leading GSA's efforts to help direct federal real estate activities to encourage the provision of environments where communities and employees live and work.



GOVERNMENT FINANCE OFFICERS ASSOCIATION

*Distinguished  
Budget Presentation  
Award*

PRESENTED TO

**Washington Metropolitan Area Transit Authority  
District of Columbia**

For the Fiscal Year Beginning

**July 1, 2016**

Executive Director

## Chapter 1 - Introduction



NoMa-Gallaudet University/New York Ave Station

# Metro Profile

## History in Brief

The Washington Metropolitan Area Transit Authority (WMATA), commonly referred to as Metro, was created in 1967 through an interstate compact among the District of Columbia, Maryland and Virginia. Construction of the Metrorail system began in 1969, and the first phase of Metrorail operation began in 1976.

Metro added a second transit service to its network in 1973 when, under direction from the United States Congress, it acquired four Washington-area bus systems and merged them to create Metrobus.

In 1994, as mandated by the Americans with Disabilities Act, Metro began providing MetroAccess paratransit service for people with disabilities who are unable to use the fixed route transit service.

Metro completed the originally planned 103-mile Metrorail system in early 2001. In 2004, Metro expanded the rail system, opening the Blue Line extension to Largo Town Center, as well as the NoMa-Gallaudet U station on the Red Line. These expansions increased the Metrorail system to 86 stations and 106 miles.

In March 2009, Metropolitan Washington Airports Authority (MWAA) started construction on the Silver Line, a 23-mile rail extension in Fairfax and Loudoun Counties in Virginia. Supported by a Full-Funding Grant Agreement from the Federal Transit Administration, toll revenues, and other revenues from funding partners, the first phase of 11.6 miles and five new stations extending service to Tysons Corner and Reston opened July 26, 2014. Phase 2, an additional 11.4 miles with six new stations, will provide service to Dulles International Airport and Loudoun County. Construction on Phase 2 is expected to be complete in 2019 and revenue service is projected to begin during FY2020.

*The Silver Line is Metro's largest rail expansion project since the opening of the National Airport to Stadium-Armory segment in 1977.*

## Key Metro Facts

- Metro's service area size is approximately 1,500 square miles with a population of approximately four million people.

- Metro's transit zone consists of the District of Columbia, the Maryland counties of Prince George's and Montgomery, and the Northern Virginia counties of Arlington, Fairfax and Loudoun and the cities of Alexandria, Fairfax and Falls Church.
- Average weekday passenger trips on Metrorail, Metrobus, and MetroAccess total approximately 1.1 million.
- More than half of Metrorail stations serve federal facilities, and over a quarter of Metrorail trips on an average weekday are taken by federal employees.

*Metro has one of the most active joint development programs in the nation and has spurred over \$235 billion in economic activity at and around its stations.*

## Metrorail

The Metrorail system is a rapid transit system that consists of 118 route miles, 91 passenger stations and a fleet of over 1,100 railcars. Starting in FY2018, service is operated 5:00 am to 11:30 pm Monday through Thursday, 5:00 am to 1:00 am on Fridays, 7:00 am to 1:00 am on Saturdays, and 8:00 am to 11:00 pm on Sundays. The system is comprised of three main types of structures: underground, surface and elevated. The underground sections consist of 50.5 route miles and 47 stations, the surface sections comprise 58 miles and 38 stations, and the elevated sections consist of 9.2 route miles and six stations. While there are three types of structures, they operate as one unified system providing seamless service to passengers. All Metrorail stations and railcars are accessible to disabled passengers and compliant with the American with Disabilities Act (ADA).



Metrorail service is operated on six lines: Blue between Franconia-Springfield and Largo Town Center; Green between Branch Avenue and Greenbelt; Orange between New Carrollton and Vienna; Red between Glenmont and Shady Grove; Yellow between Huntington and Fort Totten; and Silver between Wiehle-Reston East and Largo Town Center.

*Metrorail is projected to provide 178.5 million passenger trips in FY2018.*

The first Metrorail line opened was the Red Line consisting of 4.6 miles from Farragut North to Rhode Island Avenue. By July 1977, the Blue and Orange Lines were added with service between National Airport and the Stadium-Armory. This added 11.8 miles and 17 new stations to Metro's rail operation. With continued development, in 1983 the Yellow Line was added with service from Gallery Place-Chinatown to the Pentagon, adding 3.3 miles and one station. In 1991, the Green Line was added providing service from Gallery Place to U St/ African-American Civil War Memorial/Cardozo. In 2001, the Green Line was extended to Branch Avenue, and in 2004, the Blue Line was extended to Largo Town Center

and the NoMa-Gallaudet Station on the Red Line opened to passengers. The below table provides a list of all openings.

The system is equipped with communication systems that facilitate the flow of information to and from the passenger. The Metrorail operations control center is equipped with two-way radios for communication with all train operators in service, as well as hotlines to the police and fire departments in all of the jurisdictions served by Metro. Public address systems on all trains and platforms facilitate communications from Metrorail train operators and station managers. All stations are also equipped with digital signs that show next train arrival times and system status. Passenger-to-train operator intercoms are located inside all rail cars, one at each end, and there are passenger-to-station manager intercoms on all station platforms and landings and in all elevators. The ongoing radio infrastructure renewal and cellular communications project will upgrade Metro's radio system for Metro workers and first responders, and provide cellular capability throughout the tunnels and in stations for customers

### Sequence of Metrorail Openings

Line	Segment	Stations	Miles	Date
Red	Farragut North to Rhode Island Ave	5	4.6	03/29/1976
Red	Gallery Pl-Chinatown	1	0	12/15/1976
Red	To DuPont Circle	1	1.1	01/17/1977
Blue/Orange	National Airport to Stadium-Armory	17	11.8	07/01/1977
Red	To Silver Spring	4	5.7	02/06/1978
Orange	To New Carrollton	5	7.4	11/20/1978
Orange	To Ballston- MU	4	3	12/01/1979
Blue	To Addison Road	3	3.6	11/22/1980
Red	To Van Ness- UDC	3	2.1	12/05/1981
Yellow	Gallery PL - Chinatown to Pentagon	1	3.3	04/30/1983
Blue	To Huntington	4	4.2	12/17/1983
Red	To Grosvenor	5	6.8	08/25/1984
Red	To Shady Grove	4	7	12/15/1984
Orange	To Vienna/Fairfax-GMU	4	9.1	06/07/1986
Red	To Wheaton	2	3.2	09/22/1990
Green	To U St/African-Amer Civil War Memorial/Cardozo	3	1.7	05/11/1991
Blue	To Van Dorn Street	1	3.9	06/15/1991
Green	To Anacostia	3	2.9	12/28/1991
Green	To Greenbelt	4	7	12/11/1993
Blue	To Franconia-Springfield	1	3.3	06/29/1997
Red	To Glenmont	1	1.4	07/25/1998
Green	Columbia Heights to Fort Totten	2	2.9	09/18/1999
Green	To Branch Ave	5	6.5	01/13/2001
Red	NoMa-Gallaudet U	1	0	11/20/2004
Blue	To Largo Town Center	2	3.2	12/18/2004
Silver	To Wiehle-Reston East	5	11.6	07/26/2014

Metrail's design requires high reliance on vertical mobility through the utilization of elevators and escalators. Most customers access Metrorail via escalators to the train platform, while elevators provide accessibility for persons with disabilities, seniors, customers with strollers, travelers carrying luggage and other riders.



*Metro is the single largest vertical transportation operator in North America.*

Metro operates more than 900 vertical transportation facilities (618 escalators and 317 elevators) and delivers approximately two million trips each weekday. The Wheaton Station on the Red Line has the longest escalator (230 feet) in the Western Hemisphere. The Forest Glen Station, also on the Red Line, is the deepest station in the system (196 feet or 21 stories below street level) with high speed elevators that take less than 20 seconds to travel from the street to the platform.

## Metrobus

Metrobus provides safe, reliable and effective service across the National Capital Region. Metrobus operates on 165 lines with 257 routes covering over 2,365 street miles of services throughout the region. Service is provided on a combination of local, limited-stop (MetroExtra) and express routes connecting the region to Metrorail; employment, medical and activity centers; schools, colleges and universities; airports; military installations; and commuter rail. Metro utilizes 10,727 bus stops supported by 2,554 shelters owned by 15 separate agencies.

The fleet is comprised of 1,583 buses to meet peak weekday service requirements of 1,289 buses with varying sizes and capacities, and to support maintenance of the fleet. All buses are accessible to people with disabilities, and bike racks are available for use on all buses. Service is provided from nine operating divisions located throughout

the service area in the District of Columbia, Maryland and Virginia.

*117 million trips are projected to be taken on Metrobus in FY2018, with additional trips anticipated as Metrobus continues to provide shuttle service for ongoing Metrorail maintenance and rebuilding efforts.*

The BusETA service provides customers information on Metrobus arrival times at a particular bus stop. It uses satellite technology to find specific locations of a bus and sends the estimated arrival time of the bus to customers via mobile devices. The entire bus fleet is equipped with two-way radio links to the operations control center, emergency radio silent alarms, passenger counters, and automatic vehicle locators. In addition, security cameras are installed on all Metro buses. During FY2017, Metrobus installed operator safety shields on 531 buses in the Metro fleet. All future buses will include safety shields.

## MetroAccess

The Department of Access Services (ACCS) ensures the ongoing accessibility of Metrobus and Metrorail for customers with disabilities, and in accordance with the Americans with Disabilities Act (ADA), provides MetroAccess paratransit service for those who are unable to use bus and rail. MetroAccess, a shared-ride, door-to-door service, is offered for the same days, hours, and locations as fixed-route transit, utilizing a fleet of 725 vehicles in FY2018. Service contractors operate the van service and manage the Operations Control Center and Quality Assurance functions. MetroAccess provides over two million trips each year.



Demand for paratransit service is increasing, as the population of people with disabilities is growing in the region and nationwide. For this reason, it is critical for Metro to accommodate as many customers as possible on its fixed-route services. ACCS provides travel training to assist customers with disabilities in navigating the bus and

rail system and taking full advantage of the many accessibility and safety features. MetroAccess partners with Metrobus and Metrorail to provide group orientations and workshops to educate organizations on how to provide travel training to their clients. Additionally, Metro has partnered with the jurisdictions to improve the accessibility of bus stops in the region, further enhancing customers' ability to make use of the fixed-route system. Thanks to these initiatives and Metro's free ride benefit, over 2.3 million fixed-route trips are taken by MetroAccess customers each year.

To keep MetroAccess sustainable for future years, Metro has embarked on a campaign to facilitate the establishment of lower-cost alternatives to MetroAccess. Metro is helping to facilitate the following programs:

- Coordinated Alternatives to Paratransit Services (CAPS), established in 2013, provides transportation service for clients of two human services agencies (HSA) in Maryland between the HSAs main facilities and the clients' homes. Service provided under the CAPS project costs Metro 32 percent less per trip than a comparable trip on MetroAccess.
- TransportDC, a taxi alternative to MetroAccess for District of Columbia residents was set up in 2014. Under TransportDC, a jurisdiction-run service, the District is paying 44 percent less per trip than they would have paid Metro for providing the same trips on MetroAccess. As a result, Metro reduced the District's MetroAccess subsidy by 100,000 trips or nearly \$5.0 million for FY2017.
- Abilities-Ride program, projected to start in FY2018, is a public-private partnership between Metro and one or more vendors to provide generally available on-demand and reserve trip service to MetroAccess customers for trips beginning and ending in Maryland. The program is designed to be an alternative for most Maryland-to-Maryland MetroAccess trips. Trips subsidized by the program are expected to cost Metro 66 percent less than comparable MetroAccess trips.

## Oversight

WMATA oversight is provided by a variety of internal and external offices, committees, and administrations. These oversight entities include, but are not limited to, the Federal Transit Administration (FTA), the WMATA Office of Inspector General (OIG), the Department of Internal Compliance (INCP), and various advisory entities. Each entity's oversight roles and responsibilities are described below.

## Federal Transit Administration

The FTA is the agency of the United States Department of Transportation that provides financial and technical assistance to local public transit systems. The FTA also oversees safety measures and helps develop next-generation technology research.

The Federal government, through FTA, provides financial assistance to develop new transit systems and improve, maintain, and operate existing systems. FTA provides and monitors grants to state and local transit providers. These grantees are responsible for managing their programs in accordance with federal requirements, and FTA is responsible for ensuring that grantees follow federal mandates along with statutory and administrative requirements.

On October 9, 2015, FTA assumed the safety oversight responsibilities of the Tri-State Oversight Committee, which was originally created by state-level agencies to jointly oversee rail safety and security at WMATA.

In 2017, the District of Columbia, Maryland and Virginia passed legislation to create the Metro Safety Commission (MSC), which will serve as Metro's State Safety Oversight Agency (SSOA). The creation of an SSOA was required in MAP-21. Congressional consent of the legislation passed by the three funding jurisdiction has been passed by the United State Senate; as of June 2017, the legislation was pending before the House of Representatives. Once the MSC is certified, the FTA will relinquish direct safety oversight of WMATA.

## WMATA Office of the Inspector General

The Office of Inspector General, authorized by the WMATA Board of Directors in April 2006, supervises and conducts independent audits, investigations, and reviews of Metro programs and operations to promote efficiency and financial integrity as well as to prevent and detect fraud, waste, and abuse in such programs and operations.

## Department of Internal Compliance

The Department of Internal Compliance (INCP) is a proactive business partner that assures Metro carries out its mission with integrity and in accordance with rules, regulations and policies. INCP consists of two offices, QICO and MARC.

*The Quality Assurance, Internal Compliance and Oversight (QICO)* provides independent review of Metro's operational and engineering processes and assets; promotes and coordinates the implementation of compliance with internal and external regulatory requirements; furthers quality improvement initiatives and

action plans that are data driven and results-centric with the objective of safeguarding the mission and success of the agency while enhancing the customer experience.

*The Management Audits, Risk and Compliance Office (MARC)* provides independent, objective assessments and reviews of Metro's system of internal controls and underlying business processes with a primary focus on financial management and internal business operations. Reviews and assessments are designed to add value and improve Metro's operations by bringing a systematic and disciplined approach to evaluating and improving the management of related risks, internal controls and governance processes.

## Advisors

WMATA has three primary advisory groups: the Riders' Advisory Council (RAC), the Accessibility Advisory Committee (AAC), and the Jurisdictional Coordinating Committee (JCC). These advisory entities focus on specific issues as described below:

### *Riders' Advisory Council*

In September 2005, the WMATA Board established the Riders' Advisory Council. The Council provides Metro customers a forum to provide input on bus, rail and paratransit service. The 21-member council includes six representatives from the District of Columbia, Maryland and Virginia, two at-large members, and the chair of WMATA's Accessibility Advisory Committee.

### *Accessibility Advisory Committee*

WMATA's Accessibility Advisory Committee was created to address the needs of senior citizens and customers with disabilities. Its efforts have resulted in numerous service upgrades including gap reducers, which make it easier for customers who use wheelchairs to board Metrorail trains.

### *Jurisdictional Coordinating Committee*

The Jurisdictional Coordinating Committee (JCC) consists of staff members from the jurisdictions supporting WMATA. The JCC was established by the Board of Directors to facilitate the exchange of information between jurisdictions and Metro staff. Meeting agendas are established by Metro staff and the JCC chairman and include items referred by the Board or Metro staff, as well as items requested by JCC members.

## Regional Transit Planning

The Washington Metropolitan Area encompasses over 4,000 square miles in the District of Columbia, suburban

Maryland and Northern Virginia; the region is home to almost six million people and over three million jobs.

*In FY2018, region-wide ridership on Metrorail, Metrobus and MetroAccess is projected at approximately 298 million trips.*

As the primary transit provider in the region, Metro is integral to the regional transportation planning process. The WMATA Compact gives the Authority the power to adopt a Mass Transit Plan as part of the region's continuous, comprehensive transportation planning process. Metro's regional planning function encompasses the preparation of transit system plans in partnership with other regional transit providers, conducting system-planning analysis and transportation studies, communication of transit needs to regional planning bodies, and participation in planning processes at the regional and sub-regional levels. Metro has a particular responsibility to ensure that the region's transit provider's needs, both capital and operating, are reflected during the establishment of the Mass Transit Plan and that the region achieves a balanced system of transportation.

Metro coordinates with its regional partners to determine transit-based priorities and projects. The WMATA Board of Directors, composed of members from the Compact jurisdictions and federal government, helps determine those priorities and provides policy direction. The JCC brings together jurisdictional staff to coordinate on various budget and operational issues in conjunction with Board Committee meetings. Internal planning and programming are designed to work within this institutional framework.

The National Capital Region Transportation Planning Board (TPB) is the federally designated Metropolitan Planning Organization (MPO) to coordinate transportation planning and funding for the Washington region. The TPB serves as a forum for the region to develop transportation plans, policies and actions, and to set regional transportation priorities through the Constrained Long Range Plan (CLRP) and the six-year Transportation Improvement Plan (TIP). The TPB also provides technical resources for planning and policy making. WMATA is one of the implementing agencies in the TPB planning process and is a voting member of the TPB. WMATA is also an active member of the TPB Technical Committee and several subcommittees such as Travel Forecasting, Bicycle and Pedestrian, Regional Bus, Regional Transportation Demand Management (TDM) Marketing, and Human Services Subcommittee.

The Northern Virginia Transportation Commission (NVTC) administers transit finance and operations in Northern Virginia and coordinates transit service across jurisdictional boundaries. The Northern Virginia Transportation Authority (NVTa) is responsible for

developing a Northern Virginia Regional Transportation Plan which provides long range planning and inter-agency coordination in Northern Virginia. WMATA works with both NVTC and NVTa on important transit funding and corridor development initiatives to enhance public transit service and ensure integration of transit in highway investments and Department of Transportation (DOT), District of Columbia, Maryland, and Virginia on important local plans and project development initiatives to enhance public transit service and ensure integration of transit with roadway investments.

## Demographics

Based on the 2010 Census, the population of the Compact jurisdictions currently served by Metro is 3.9 million people across four counties (Montgomery and Prince George's in Maryland, Fairfax and Arlington in Virginia), three cities (Alexandria, Falls Church, and Fairfax in Virginia), and one federal district, which is the ninth largest metropolitan area of the country.

Based on the 2014 American Community Survey (ACS), the demographic profile of the Washington Metropolitan area is as follows:

- 41.1 percent of the population is non-Hispanic white
- 29.3 percent is black or African American
- 15.5 percent is Hispanic or Latino
- 10.9 percent is Asian
- 3.2 percent is Mixed-Other

## Economy

Metro's ridership and overall financial outlook are directly influenced by the population, economic conditions, and employment growth in the District of Columbia (DC) and the surrounding jurisdictions in Maryland and Virginia.

*Job Growth in Metropolitan Washington:* According to a May 2016 study by the Metropolitan Washington Council of Governments (COGS) *Trends in Workforce Demand*, while metropolitan Washington has a skilled and educated workforce, there have been concerns in the last few years about the region's economic performance. As other

regional economies began to recover from the Great Recession, job growth in metropolitan Washington began to slow. Between the elimination of federal jobs with the enactment of the Budget Control Act of 2011 and loss of federal contracts in the first year of the sequester in 2013, an estimated thirty-six thousand jobs were lost. Employment growth in metropolitan Washington lagged behind the nation from 2012 through 2015.

The 2015 estimates from the Bureau of Labor Statistics' Current Employment Statistics program indicate that while employment increased at the greatest rate (1.9 percent) in a decade in metropolitan Washington, performance is still lagging behind the nation.

*Changing Federal Presence:* The federal government is the largest employer in the region; since 2000, between 11 and 13 percent of employment in metropolitan Washington has been federal. But the structure of the regional economy is changing. COG's regional econometric model projects that the portion of federal employment will decline from twelve percent of employment in 2015 to eight percent in 2045. The Center for Regional Analysis at George Mason University projects that while federal salaries and procurement comprised almost 40 percent of the region's economy in 2010, it is forecast to decline to just under 30 percent by 2020.

*Where is Metropolitan Washington's Economy headed:* Significant effort is currently underway to diversify metropolitan Washington's economy. Due to slow growth in federal jobs, the Roadmap for the Washington Region's Economic Future identified industrial clusters beyond the federal government with the potential to drive metropolitan Washington's economic growth over the next decade. Two of these drivers are professional and business services, which have dominated the region's economy for a long time.

The economic factors of slow job growth and the future outlook of federal government spending impact Metro's forecast for Metrorail and Metrobus ridership. Metro is forecasting minimal to no increases in system utilization during FY2018, aligning with current economic projections of the area.

## Executive Summary

The General Manager/CEO's three priorities for Metro are safety, service reliability, and financial responsibility, with safety as the top priority. These priorities guided the development of the \$3.1 billion FY2018 budget and informed every key decision. Metro must rebuild trust with its riders and funding jurisdictions; this budget provides the resources to achieve the priorities and continue the rebuilding effort.

Metro faced major challenges in developing a balanced FY2018 budget due to both expense growth and significantly reduced fare revenues as a result of declining ridership. The current ridership decline is partly due to service quality and reliability as well as the SafeTrack program. However, the ridership decline is also attributable to other factors which Metro cannot control, such as growth in telecommuting, the low price of gasoline, and the expansion of alternative transportation options. Balancing the FY2018 operating budget in the face of this ridership decline required shared sacrifice. The budget closes the gap through significant reductions in Metro employee headcount and other management actions; the right-sizing of bus and rail service to closely align with current ridership levels; a fare increase; and an increase in the funding contributions from the local jurisdictions.

The budget also reflects increased capital funding request from local jurisdictions for the FY2018-2023 Capital Improvement Program (CIP). Metro's rate of capital investment continues to improve, with over \$1 billion invested through the FY2016 CIP, and \$1.1 to \$1.2 billion forecasted to be invested in FY2017. The FY2018-2023 CIP Financial Plan assumes continued federal grant funding at current levels over the six-year period, plus over \$4 billion of jurisdictional investment in order to achieve the \$7 billion investment plan.

### Budget Highlights

#### Operating Budget

The approved operating budget for FY2018 is \$1.8 billion. The budget is funded with \$845 million of projected operating revenues, primarily from passenger fares, parking fees, and advertising revenues, and \$980 million of jurisdictional contributions.

A primary cause of Metro's current budget challenge is the decline in rail ridership. Total rail ridership peaked in FY2009 and has stagnated or declined each year since. While the broader economic and demographic factors in this decline are outside of Metro's control, customers have also responded to service quality and reliability challenges by finding alternative travel options. Improving the

customer experience – particularly service reliability – is critical to reversing current trends.

Rail system ridership through the third quarter of FY2017 was down 9 percent compared to last year and 13 percent compared to budget. While it is estimated that many of the riders who have reduced their trips on Metro due to SafeTrack will return, the overall trends are still challenging, and it will take time to rebuild customer trust and confidence in Metro. Therefore, the base FY2018 revenue projection remains flat from the FY2017 year end forecast.

In order to balance the budget, the Board has approved fare increases, service reductions, and increases in jurisdictional contributions; in addition, Metro is implementing management and labor actions. The proposals for fare and service changes went through Metro's extensive public outreach process prior to approval. After accounting for related ridership loss, net revenue from the fare increase is budgeted at \$20 million, while the service changes reduce required subsidy contributions by \$10 million. The management and labor actions are described in greater detail below.

Total Metro employee headcount has increased substantially in recent years. From less than 11,000 in FY2010, budgeted headcount grew to just over 13,000 in FY2017 to support a number of important initiatives, including the expanded capital program; the opening of Silver Line Phase 1; the adoption of industry-leading fatigue management policies; and the expansion of safety assurance, quality control, and compliance activities. To improve management efficiency, in FY2017 the GM/CEO directed 700 positions be eliminated, reducing non-essential positions including management and administrative staff, throughout the Authority. The FY2018 budget includes a reduction of an additional 100 operations positions (operators, mechanics and supervisors) associated with right-sizing bus and rail services. Taken together, these 800 positions represent a six percent reduction in total Metro budgeted headcount.

The budget also includes other initiatives to reduce costs and operate Metro more efficiently. These include changes to healthcare for non-represented employees that bring the benefits program in line with other public employees in the region, as well as tighter controls on absenteeism, workers' compensation costs and overtime. While the budget includes certain contractually required step increases for labor, given the current financial challenges facing Metro and the local jurisdictions, it assumes no general wage increase in FY2018. This presents a financial risk for

Metro and the jurisdictions given potential labor negotiation outcomes.

Due to the significant reduction in headcount, personnel costs are projected to decline in FY2018. However, total non-personnel costs will increase by 11 percent, driven by the following factors:

- \$52 million increase in Services including safety and reliability improvements, contract cost inflation, paratransit, NTSB/FTA and audit/financial compliance requirements, and new facility maintenance
- \$14 million increase in Materials and Supplies including railcar parts and safety and reliability improvements
- \$10 million decrease in energy due to lower rates and service reductions
- \$6 million decrease in expected payouts for casualty and liabilities
- \$2 million decrease in capital indirect cost allocation credit

### Capital Budget

The \$1.25 billion FY2018 capital budget and \$7.2 billion FY2018-2023 CIP focus Metro's capital investment on the safety, state of good repair, and reliability of Metrorail, Metrobus, and MetroAccess assets. The six-year CIP investment priorities include the acquisition of new 7000 series railcars, establishment of radio and wireless communications infrastructure, replacement of buses and paratransit vehicles, rehabilitation and maintenance of railcars and buses to improve and maintain service reliability and continued investment in rail, rail stations and bus system infrastructure to improve safety and address state of good repair backlogs.

The FY2018-2023 CIP assumes that federal formula and PRIIA grant funding will continue at current levels and jurisdictional investment increases significantly to address more of the system's safety, state of good repair, and reliability needs. Of the total \$7.4 billion in funding required over the six years (which includes \$208 million of planned repayment for short-term debt used in FY2017), over \$4.4 billion will come in the form of state and local contributions; including local match, system performance, and long-term debt.

Metro's CIP is grouped into six major investment categories: Railcars, Rail Systems, Track & Structures, Stations & Passenger Facilities, Bus & Paratransit, and Business Support. These investment categories are further subdivided into 17 program areas. Within these CIP categories and programs are four types of capital investments: Safety, State of Good Repair & Minor

Projects; Major Capital Projects; Development & Evaluation Initiatives; and Future Major Projects.

***Safety, State of Good Repair, and Minor Projects*** represent a significant portion of Metro's capital investment for maintenance, rehabilitation, and replacement of Metro's existing infrastructure and vehicle assets and components. These safety and state of good repair investments are advanced through annual, recurring programs. The programs are informed by safety and compliance recommendations and requirements, and they typically rely on the age or the condition of the specific assets to determine work plan prioritization. Examples include, but are not limited to: railcar component maintenance and rehabilitation; bus and paratransit vehicle repair, rehabilitation, and replacement; rail, crosstie, and track fastener replacement; track circuit replacement; power cable replacement; and elevator and escalator repair, rehabilitation, and replacement.

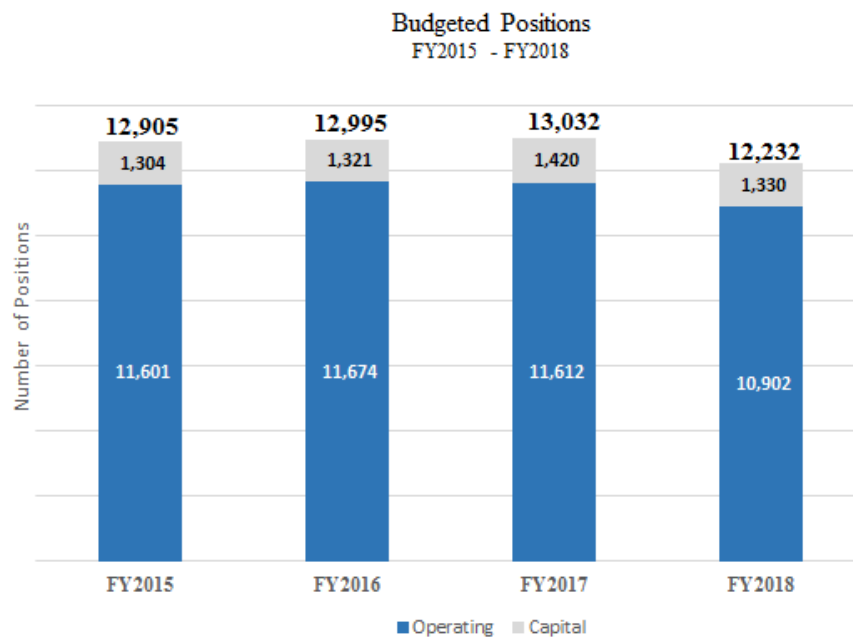
***Major Active Capital Projects*** are large, multi-year construction and acquisition projects, such as construction of a new maintenance facility or the acquisition of railcars. Several major capital projects are currently underway, including the 7000 series railcar acquisition; construction of the Cinder Bed Road and Andrews Federal Center Bus Maintenance facilities; the Radio and Wireless Infrastructure project; and the construction of Silver Line Phase 2 to Dulles Airport and Loudoun County, which is funded and managed by the Metropolitan Washington Airports Authority (MWAA).

***Development and Evaluation (D&E) Initiatives*** provide funding for planning, development, and evaluation for potential capital projects to help establish scope, schedule and budget prior to implementation. This process also helps ensure that capital investments are efficient and effective and project risks are mitigated. The GM/CEO has established a formal D&E Program as part of the FY2018-2023 CIP to advance key capital investment needs, including: Red Line Water Remediation, 2000/3000 Series Railcar Replacement, Red Line Core Capacity, Tunnel Ventilation, Bladensburg/Northern Bus Garage Rebuild or Replacement, and Metro Office Facilities. Additional capital investment needs will be added to the D&E program in the future as the program matures, subject to the availability of funding and regional and system capacity to advance major capital projects.

***Future Major Projects*** is the classification for provisional funding allocated for the initiation of projects expected to progress beyond the Development & Evaluation phase and into initial design, engineering, and construction.

## Budgeted Positions

The number of positions for FY2018 is 12,232, consisting of 10,902 operating budget positions and 1,330 capital budget positions.



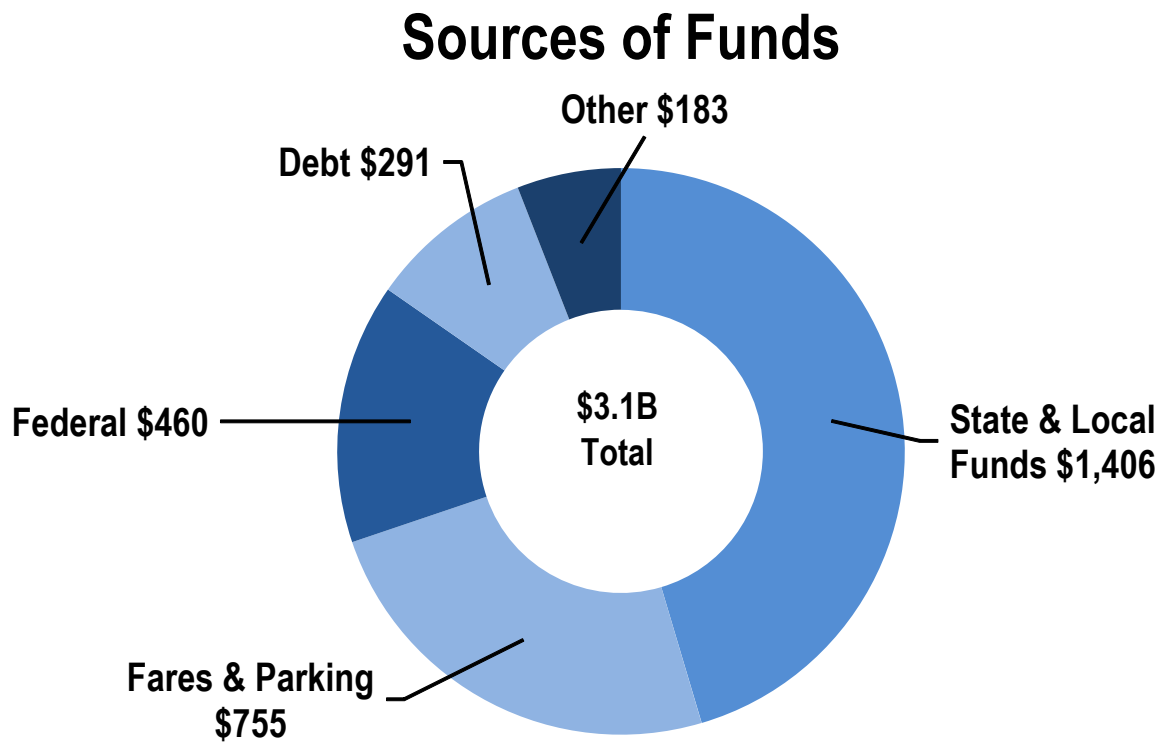
## Summary of Funds by Source

<i>(Dollars in Thousands)</i>	FY2017 Approved	FY2018 Approved
<b>Operating Budget<sup>1</sup></b>		
Passenger Fares & Parking	\$839.0	\$755.4
State and Local Funds <sup>2</sup>	\$900.7	\$1,031.5
Non-Transit Revenues	\$47.0	\$47.6
Other Sources	\$14.0	\$11.3
<b>Subtotal</b>	<b>\$1,800.7</b>	<b>\$1,845.7</b>
<b>Capital Budget<sup>1</sup></b>		
Federal Formula/Other Grants	\$317.3	\$311.9
Federal Dedicated Funds (PRIIA)	\$172.0	\$148.5
State and Local Funds	\$394.8	\$374.4
Other Sources <sup>3</sup>	\$59.7	\$124.2
Planned Long-Term Financing	\$58.3	\$291.0
<b>Subtotal</b>	<b>\$1,002.0</b>	<b>\$1,250.0</b>
<b>Grand Total</b>	<b>\$2,802.7</b>	<b>\$3,095.7</b>

<sup>1</sup> Metro is required to have a balanced budget, i.e. projected funding equal planned expenses. To the extent that prior year funding remains available and is planned to be used in the current fiscal year, it is included therein. Annual operating and capital budget expires at the conclusion of each fiscal year. Therefore, there is no beginning balance for the operating and capital budgets.

<sup>2</sup> Includes Net Subsidy, Operating Reimbursables and contributions for FY2017 and FY2018 Debt Service

<sup>3</sup> Includes jurisdictional projects



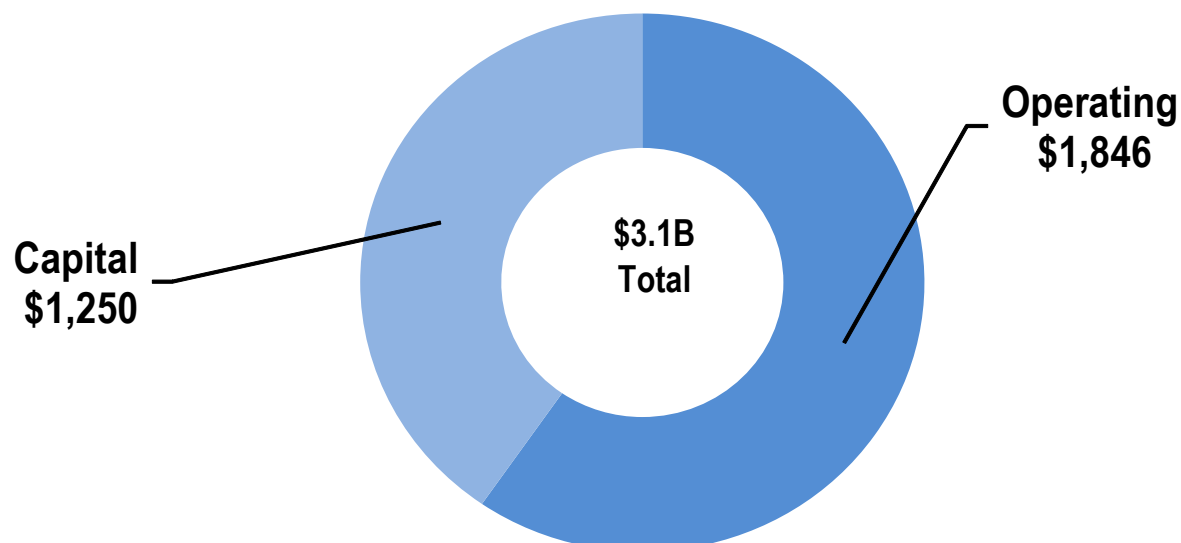
## Summary of Expenditures by Program

<i>(Dollars in Thousands)</i>	FY2017 Approved	FY2018 Approved
<b>Operating Budget<sup>1</sup></b>		
Metrobus	\$653.3	\$689.8
Metrorail	\$972.5	\$983.4
MetroAccess	\$119.6	\$120.5
Operating Reimbursable Projects	\$34.2	\$30.8
<b>Subtotal</b>	<b>\$1,779.5</b>	<b>\$1,824.5</b>
Debt Service	\$21.2	\$21.2
<b>Subtotal</b>	<b>\$1,800.7</b>	<b>\$1,845.7</b>
<b>Capital Budget<sup>1</sup></b>		
Capital Improvement Program <sup>2</sup>	\$1,002.0	\$1,250.0
<b>Subtotal</b>	<b>\$1,002.0</b>	<b>\$1,250.0</b>
<b>Grand Total</b>	<b>\$2,802.7</b>	<b>\$3,095.7</b>

<sup>1</sup> Metro is required to have a balanced budget, i.e. projected funding equal planned expenses. To the extent that prior year funding remains available and is planned to be used in the current fiscal year, it is included therein. Annual operating and capital budget expires at the conclusion of each fiscal year. Therefore, there is no beginning balance for the operating and capital budgets.

<sup>2</sup> Includes jurisdictional projects

## Uses of Funds



## Chapter 2 - Budget Summary

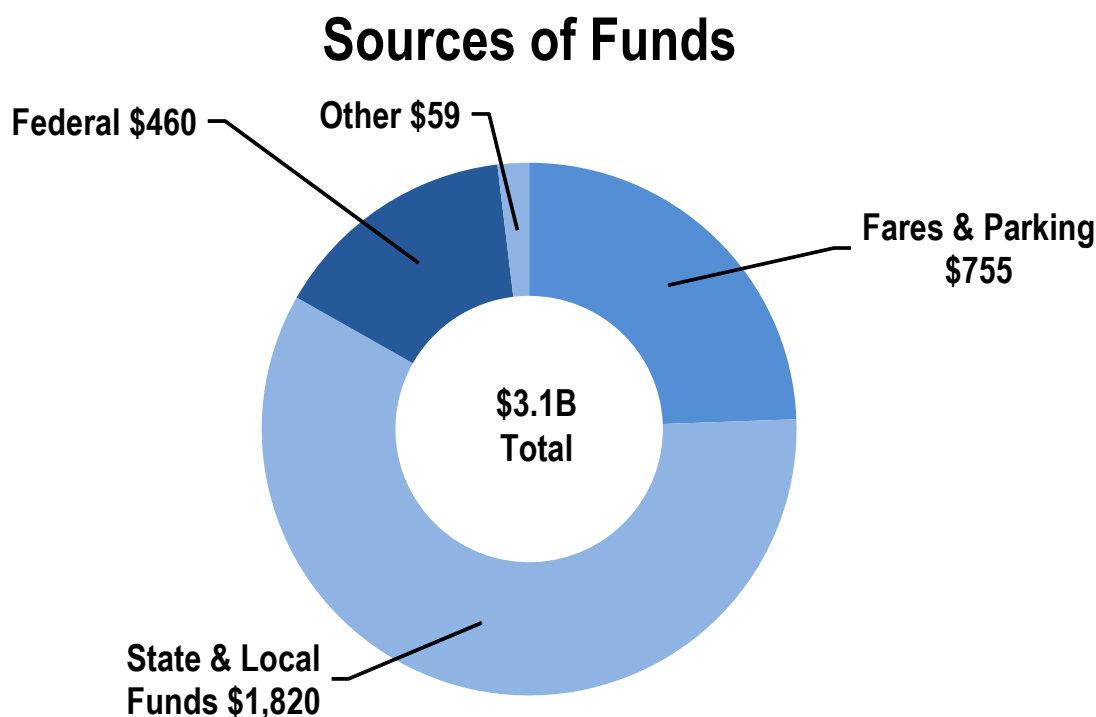


Metrobus - Dupont Circle

## Approved FY2018 Budget

Metro's FY2018 budget totals \$3.1 billion, which includes the operating budget and debt service (\$1.85 billion) and the capital budget (\$1.25 billion). Funding is comprised of the following sources:

- Metrorail, Metrobus and MetroAccess passenger fares and parking fees of \$755.4 million
- State and local funding of \$1.8 billion, consisting of:
  - \$1.0 billion for jurisdictional operating subsidy (including prior year debt service)
  - \$30.8 million for operating reimbursable projects,
  - \$374.4 million in state/local funding for the capital program, including federal formula and Passenger Rail Investment and Improvement Act (PRIIA) match, system performance funds, and other state and local contributions
- Federal funding of \$460.4 million, consisting of \$148.5 million in PRIIA funding, \$301.1 million in Federal Transit Administration (FTA) formula grants, and \$10.8 million in other federal grant sources, including Congestion Mitigation and Air Quality (CMAQ), resiliency, and Department of Homeland Security (DHS) grants.
- Other funding, including advertising, joint development, fiber optic revenues, and other sources totaling \$58.9 million.



## Operating Revenue

Metro's total operating revenue budget for FY2018 is \$845.0 million. Due to declining ridership on both bus and rail, the impact of service reductions, and fare increases, the passenger revenue estimate (including transit fares and parking fees) is \$83.7 million lower than the FY2017 budget.

Passenger fares and parking fees of \$755.4 million make up over 89 percent of the total revenue budget.

Non-passenger business revenues from advertising, joint development and fiber optic leases are estimated at \$47.6 million while other miscellaneous revenues total \$11.3 million, including projected revenues from property and equipment sales. Operating reimbursable projects contribute \$30.8 million to the approved budget primarily consisting of the DC Circulator program, which is budgeted at \$24.3 million for FY2018.

### Operating Revenue

(Dollars in Millions)	Actual 2015	Actual 2016	Approved 2017	Approved 2018	Variance to FY2017	
					\$ Chg.	% Chg.
Passenger Fares <sup>1</sup>	\$793.3	\$744.0	\$791.9	\$713.2	(\$78.7)	-10.0%
Parking	\$46.5	\$45.0	\$47.1	\$42.2	(\$4.9)	-10.0%
Advertising	\$22.4	\$22.8	\$23.5	\$24.0	\$0.5	2.0%
Joint Development	\$6.2	\$11.1	\$7.0	\$8.0	\$1.0	14.0%
Fiber Optics	\$15.4	\$15.6	\$16.5	\$15.6	(\$0.9)	-5.0%
Other Nontransit Sources <sup>2</sup>	\$23.3	\$32.6	\$14.0	\$11.3	(\$2.7)	-19.0%
Reimbursables	\$31.9	\$28.7	\$34.2	\$30.8	(\$3.4)	-10.0%
<b>Total Revenue</b>	<b>\$939.0</b>	<b>\$899.9</b>	<b>\$934.2</b>	<b>\$845.0</b>	<b>(\$89.2)</b>	<b>-10.0%</b>

<sup>1</sup> Includes DC student subsidy and Anacostia fare buydown programs

<sup>2</sup> Interest, employee parking, bicycle lockers, vending machines, Neutral Host, ATMs, antennas, car sharing, other. FY2016 also includes one-time usage of \$27 million of Transit Infrastructure Investment Fund (TIIF) revenue to support Metrorail operating expenses.

## Ridership and Passenger Revenue

The FY2018 budget uses the FY2017 year-end forecast as a baseline, modified for external factors that affect passenger trip-making as well as the anticipated ridership impacts of policy changes regarding fare increases and service reductions. Total Metrorail ridership is projected at 178.5 million trips, a decline of 24.9 million or 13.7 percent compared to the FY2017 budget. Total Metrobus ridership is projected at 116.9 million, a decline of 18.6

million or 13.7 percent compared to the FY2017 budget. These projections reflect a continuation of the lower actual ridership performance seen in FY2017, as well as the impacts of approved service reductions and fare increases. MetroAccess ridership is expected to remain flat to the FY2017 projected level, as underlying growth is offset by joint programs with Maryland and the District of Columbia to shift certain trips to less expensive alternative providers.

### Ridership by Service

(Trips in Thousands)*	Actual 2015	Actual 2016	Budgeted 2017	Budgeted 2018	Variance to FY2017	
					# Chg.	% Chg.
Metrorail	206,396	191,348	203,500	178,505	(24,995)	-12.3%
Metrobus	132,902	127,432	135,600	116,968	(18,632)	-13.7%
MetroAccess	2,238	2,281	2,420	2,400	(20)	-0.8%
<b>Total</b>	<b>341,536</b>	<b>321,061</b>	<b>341,520</b>	<b>297,873</b>	<b>(43,647)</b>	<b>-12.8%</b>

\* Metrorail ridership is based on linked trips; Metrobus ridership is based on unlinked trips; MetroAccess ridership is based on total passengers. Unlinked trips are total boardings, while linked trips are total number of complete trips from origin to destination, including transfers.

Similarly, the approved revenue budget for passenger fares for FY2018 is based on the year-end FY2017 revenue forecast and adjusted for fare increases.

In the past, two of the best indicators for projecting ridership trends have been population and employment expectations for the District of Columbia. However, the

changing trip-making behavior evident in the post-recession environment has proven challenging to forecast, particularly with respect to telecommuting and the emergence of alternative travel options. This has been compounded in the past two years by service quality and reliability concerns.

Metro's last system-wide fare increases were implemented in FY2015. Metro would normally have considered fare changes for FY2017, in keeping with the Board of Directors' policy of considering fare changes on a biennial basis. But given ridership declines and challenges with customer satisfaction, the FY2017 budget included no broad-based fare increases. However, due to the substantial projected budget gap in FY2018, the approved operating budget includes both fare increases and service reductions, along with the elimination of 800 positions, other operational efficiencies, and increases in jurisdictional contributions.

## Metrorail

Metrorail passenger fare revenue for FY2018 (including fares related to the DC student subsidy program) is budgeted at \$542.8 million, a decrease of \$78.2 million or 12.6 percent, from the FY2017 budget. Through FY2017, ridership on Metrorail has been consistently lower than the same period of FY2016, and the FY2018 budget reflects a projected continuation of that trend. The projection also reflects the net revenue growth associated with a \$0.10 increase in peak rail fares and a \$0.25 increase in off-peak rail fares.

*Reduced service reliability – with a concurrent drop in customer satisfaction – has presented significant challenges for Metro.*



The decline in ridership in FY2016 and FY2017 has been due in large part to customer concerns over service quality and reliability, including a series of safety-related incidents. In addition, rail on-time performance, which measures how evenly-spaced the trains are, has been consistently below target, impacting travel times and customer crowding. In order to address the reliability issues associated with track and structures, Metro initiated the SafeTrack program in June 2016. This has also negatively impacted on ridership as the sequential "surges" of intense maintenance and rehabilitation work have lengthened and disrupted travel across the region.

However, even once Metro's current service delivery challenges are overcome and passengers see Metrorail as a consistently reliable travel option, other external factors may continue to impact future growth. These include:

- Federal employment in the region (both direct employees and contractors) continues to stagnate. This decline is due to a number of causes, including overall fiscal constraints, an increasing number of retirements (as the Baby Boomer generation reaches retirement age), and the draw down of military engagements abroad. Federal employees are a key market segment for Metrorail, and the economic impact of this lack of growth is seen in Metro's ridership.
- Beginning in the fall of 2014, gas prices dropped to levels not seen since 2009-2010. As of late 2016, the national average price for regular gas has remained just slightly above \$2.00 per gallon. All else equal, lower gas prices make driving a more attractive option.
- There are a number of other market-based factors that adversely impact rail ridership. These include telecommuting and alternative work schedules, which are heavily promoted by both private sector employers and federal departments and agencies (ridership on Mondays and Fridays in particular shows the impact of these policies), and shifts to competing transportation options, including car-sharing.

The District of Columbia student subsidy program continues to have a positive impact on Metrorail ridership and on Metro's overall revenues. In the summer of 2015, the Council of the District of Columbia approved a new "Kids Ride Free on Rail" program to complement the existing "Kids Ride Free on Bus" program. Students can now make unlimited trips on Metrorail (within the District of Columbia), and the District of Columbia compensates Metro for the trips. In partnership with District Department of Transportation (DDOT) and District of Columbia Public Schools (DCPS), Metro is continuing this program for the 2017/2018 school year.



## Metrobus

The Metrobus passenger revenue budget for FY2018 is \$160.7 million, a decrease of \$0.3 million or 0.2 percent compared to the FY2017 budget. After declining in the immediate aftermath of the 2009-2010 recession, Metrobus ridership and revenue performance in the years following was generally strong, as passengers responded positively to the combination of low fares and high quality service (e.g., new bus fleet, improved reliability and on time performance). Growth in demand for Metrobus has been particularly strong in certain corridors such as 14th Street, 16th Street, and Georgia Avenue in the District of Columbia, where Metro has added capacity and improved travel time. In addition, the Kids Ride Free program for District of Columbia students continues to be successful, with over 20,000 student rides on an average weekday.



However, bus ridership declined in the second half of FY2016 and has continued to trend downward in FY2017. This decline has a number of contributing causes:

- Average bus speeds have steadily declined in recent years, which impacts the on-time performance and quality of service. Many factors are contributing to this trend, particularly increased traffic congestion, but there are opportunities to improve the customer experience, including investments in Traffic Signal Priority (TSP).
- Ridership is also trending downward at other bus operations across the region, indicating a correlation to broader socioeconomic conditions. Metro continues to work with partner jurisdictions to understand and address the causes of these declines.
- Rail's reliability and service challenges are impacting bus. Morning bus-to-rail transfers are down and the heaviest losses have been concentrated at major transfer stations including Wiehle, New Carrollton, Vienna, and Pentagon, indicating that bus is losing some trips from commuters reacting to the challenges on rail.

Despite the projected decline in bus ridership, total bus revenue in FY2018 is expected to drop only slightly from the FY2017 approved level due to an increase in the base bus fare from \$1.75 to \$2.00. Since Metro continues to

accept cash payment for bus boarding, increases in \$0.25 increments are preferred in order to minimize cash handling/counting and also to reduce potential added time as customers search for exact change. A \$2.00 base bus fare is also well within the normal range for bus fares at peer transit agencies across the country.

## MetroAccess

MetroAccess ridership in FY2018 is projected to remain comparable to the FY2017 forecast, with underlying growth offset by a shifting of trips to alternative partnership programs in Maryland and the District of Columbia. MetroAccess passenger revenue budget for FY2018 is \$9.7 million.

*As the population continues to age, and disability rates continue to rise, the utilization of MetroAccess is expected to grow*



Approximately 60 percent of MetroAccess trips are provided in Montgomery and Prince George's counties in Maryland, with another 14 percent of trips in the combined Virginia jurisdictions, and the remaining 26 percent in the District of Columbia. Trip volumes are relatively low in Virginia due to the presence of alternative service providers, and growth has been slowed recently in the District of Columbia as a result of the TransportDC program, which shifts certain eligible MetroAccess trips onto taxicabs. The Abilities-Ride program, projected to start in FY2018, will shift additional trips onto alternative providers in Maryland.

## Parking

Total parking revenue for FY2018 is projected at \$42.2 million, a decline of \$4.9 million compared to the approved FY2017 budget. Overall parking utilization in FY2017 declined to 65 percent in conjunction with the declines seen in Metrorail ridership. In particular, parking along the Orange Line in Virginia, has shifted substantially as a result of the opening of the Silver Line and the addition of 2,300 spaces at the new parking facility at the Wiehle-Reston East station, which is not owned by Metro.

Notably, utilization has dropped at West Falls Church, which was also significantly impacted by the SafeTrack program, from an average of 97 percent prior to the opening of the Silver Line to below 50 percent in FY2017.

## New Fare Products

*As part of Metro's effort to better serve customers and encourage ridership, the budget includes changes to fare products in order to simplify offerings.*

- **University Pass:** Metro is working in cooperation with universities in the region to offer the University Pass (or U-Pass) aimed at students. The University Pass offers unlimited riding privileges at substantially discounted rates to full-time students at accredited colleges.



University students represent an untapped partnership, with 20 colleges and approximately 225,000 students in the region who can drive additional ridership and revenue for Metro while reducing the need for parking facilities on university campuses. The University Pass program requires 100 percent student participation, and each student receives a semester or annual pass that offers unlimited rides on Metrobus and Metrorail. The incremental ridership and revenue from the University Pass will vary depending on the particular campuses that choose to participate, given their location and the transportation options available to students.

- **SelectPass:** Metro implemented a pilot for a new SelectPass monthly product in the spring of 2016, and based on positive customer feedback and usage, the pass was approved by the Board in FY2017.
  - Subscribers are able to select a price point based on their normal commute trip, making this pass customizable for each individual's travel needs and budget – any trip with a fare equal to or less than the normal commute trip is covered, and any occasional longer trip just requires payment of the

fare difference from stored value on the SmarTrip® card.

- Customers can choose to extend their transit access by making their pass qualify for unlimited bus trips in addition to Metrorail trips.
- The pass begins and ends on the first of every calendar month, and has an option to conveniently auto-renew, allowing subscribers to no longer worry about having enough value on their cards and instead “set it and forget it”.

The new monthly pass gives customers unlimited access to the Metrorail system for one low price, paid as a monthly subscription, allowing customers to use the Metro transit network in ways built around today's lifestyles and travel patterns.

- **Simplification of rail passes and expansion of combo rail/bus passes:** While Metro's 7-day unlimited bus pass is a popular product, the 1-day, 7-day, and 28-day rail passes are relatively under-utilized. Due to the success of the monthly SelectPass product, the 28-day rail pass has been eliminated. In order to improve the attractiveness of the 1-day pass for tourists and other visitors, the FY2018 budget adds unlimited bus travel to the pass for no incremental charge. Metro continues to evaluate the usage of the 7-day rail passes and may suggest elimination of one or both in the future, depending on the utilization of the new SelectPass.
- No net additional revenue from these products is included in the FY2018 budget. SelectPass is slightly revenue-positive overall, but its primary impact (as demonstrated in the pilot phase) is to increase ridership, particularly during off-peak periods when there is unused capacity. As of FY2017, the University Pass (U-Pass) was only been rolled out to one university (American University), and the implementation dates and expected revenues for additional schools joining the program are unspecified. Finally, the simplification of pass products is expected to make purchasing fare media easier for riders (especially visitors), but is not expected to materially impact total revenue.

## Non-Passenger Revenue

### Advertising

Total advertising revenue in FY2018 is projected at \$24.0 million, an increase of \$0.5 million over the FY2017 budget. A new multi-year advertising contract commenced in FY2016, and the Board's 2015 actions approving an expansion of the advertising inventory (including more digital advertising) and approving the advertising of alcohol are projected to provide additional revenue growth. These policy actions, combined with organic growth, are

expected to more than offset the loss of revenue associated with the Board's enactment of a permanent ban on the sale of issue-oriented advertising, which was about five percent of annual advertising revenue.



### ***Joint Development***

The FY2018 Joint Development revenues allocated to the operating budget are \$8.0 million. These revenues tend to grow moderately over time as leases are negotiated. Per current Board policy, revenues from new joint development leases or joint development property sales are to be allocated to the Capital Improvement Program (CIP).

### ***Fiber Optics***

The Metro Fiber Optic Program, initiated in September 1986, has allowed for the installation, operation, and maintenance of a fiber optic-based telecommunication

network that utilizes excess capacity within the Metro right-of-way. Metro also receives a number of fibers for its own use as part of the compensation package. For FY2018, fiber optic revenue budget is \$15.6 million.

### ***Other Revenue***

Other revenue in the FY2018 budget includes proceeds from vending machines, ATM revenue, cellular telephone agreements, employee parking, bike locker fees, car sharing revenue, antenna revenue and property disposal. These combined miscellaneous revenue sources are expected to contribute \$11.3 million to FY2018 non-passenger revenues, a decrease of \$2.7 million from the FY2017 budget due to an anticipated decline in disposal sales.



## Operating Budget Revenues

<i>(Dollars in Thousands)</i>	Actual FY2015	Actual FY2016	Approved FY2017	Approved FY2018	Variance
<b>MetroBus</b>					
Passenger	\$145,691	\$141,053	\$152,120	\$146,075	(\$6,045)
Other Passenger	9,480	8,991	8,825	14,584	5,759
Parking	410	0	0	0	0
Advertising	14,956	15,273	15,699	16,080	381
Joint Development	0	0	0	0	0
Fiber Optics	0	0	0	0	0
Other	5,569	681	3,080	5,639	2,559
Interest	17	67	0	0	0
<b>Subtotal</b>	<b>\$176,123</b>	<b>\$166,066</b>	<b>\$179,724</b>	<b>\$182,378</b>	<b>\$2,654</b>
<b>MetroRail</b>					
Passenger	\$626,965	\$574,351	\$612,800	\$538,169	(\$74,631)
Other Passenger	2,090	10,425	8,218	4,631	(3,587)
Parking	46,103	45,039	47,103	42,164	(4,939)
Advertising	7,466	7,519	7,801	7,920	119
Joint Development	6,161	11,139	7,000	8,000	1,000
Fiber Optics	15,441	15,583	16,500	15,600	(900)
Other	17,754	31,887	10,909	5,639	(5,270)
Interest	6	10	0	0	0
<b>Subtotal</b>	<b>\$721,986</b>	<b>\$695,953</b>	<b>\$710,330</b>	<b>\$622,123</b>	<b>(\$88,207)</b>
<b>MetroAccess</b>					
Passenger	\$9,045	\$9,156	\$9,972	\$9,732	(\$240)
Other Passenger	0	0	0	0	0
Parking	0	0	0	0	0
Advertising	0	0	0	0	0
Joint Development	0	0	0	0	0
Fiber Optics	0	0	0	0	0
Other	0	0	0	0	0
Interest	0	0	0	0	0
<b>Subtotal</b>	<b>\$9,045</b>	<b>\$9,156</b>	<b>\$9,972</b>	<b>\$9,732</b>	<b>(\$240)</b>
<b>Reimbursables</b>	<b>31,871</b>	<b>28,740</b>	<b>34,197</b>	<b>30,767</b>	<b>(3,431)</b>
<b>Subtotal</b>	<b>\$31,871</b>	<b>\$28,740</b>	<b>\$34,197</b>	<b>\$30,767</b>	<b>(\$3,431)</b>
<b>Total</b>					
Passenger	\$781,701	\$724,560	\$774,891	\$693,976	(\$80,915)
Other Passenger	11,570	19,417	17,043	19,215	2,172
Parking	46,513	45,039	47,103	42,164	(4,939)
Advertising	22,422	22,792	23,500	24,000	500
Joint Development	6,161	11,139	7,000	8,000	1,000
Fiber Optics	15,441	15,583	16,500	15,600	(900)
Other	23,323	32,568	13,989	11,278	(2,711)
Interest	24	77	0	0	0
Reimbursables	31,871	28,740	34,197	30,767	(3,431)
<b>Grand Total</b>	<b>\$939,025</b>	<b>\$899,916</b>	<b>\$934,223</b>	<b>\$845,000</b>	<b>(\$89,224)</b>

## FY2018 Operating Subsidy

The FY2018 jurisdictional operating funding is \$1,000.7 million – \$134.2 million more than the FY2017 budget. This includes:

- FY2018 net operating subsidy for Metrobus, Metrorail, and MetroAccess of \$979.5 million, an increase of \$134.2 million or 15.9 percent over FY2017, primarily as a result of ridership and revenue decline, expense growth and reductions for eligible preventive maintenance (PM) expenses with FTA grants in the capital budget.
- Jurisdictional contributions for debt service payments of \$21.2 million, approximately the same as FY2017.

### Jurisdictional Operating Subsidy

<i>(Dollars in Millions)</i>	Approved 2015	Approved 2016	Approved 2017	Approved 2018	\$ Variance	% Change
Net Subsidy	\$778.1	\$845.3	\$845.3	\$979.5	\$134.2	15.9%
Debt Service	21.2	21.2	21.2	21.2	0.0	0.0%
Prior Year Surpluses	-20.0	0.0	0.0	0.0	0.0	0.0%
<b>Total Subsidy</b>	<b>\$779.3</b>	<b>\$866.5</b>	<b>\$866.5</b>	<b>\$1,000.7</b>	<b>\$134.2</b>	<b>15.5%</b>

**FY2018 Approved Budget**  
Summary of State and Local Operating Requirements

	Total	District of Columbia	Montgomery County	Prince George's County	City of Alexandria	Arlington County	City of Fairfax	Fairfax County	City of Falls Church
<b>Metrobus Operating Subsidy</b>									
Regional Bus Subsidy	\$438,883,944	\$186,602,264	\$63,432,473	\$75,660,251	\$19,229,240	\$33,447,554	\$664,549	\$58,211,266	\$1,636,347
Non-Regional Bus Subsidy	\$68,536,922	\$29,466,821	\$7,768,082	\$21,165,430	\$2,761,757	\$1,941,083	—	\$5,433,750	—
<b>Subtotal</b>	<b>\$507,420,866</b>	<b>\$216,069,084</b>	<b>\$71,200,554</b>	<b>\$96,825,681</b>	<b>\$21,990,997</b>	<b>\$35,388,637</b>	<b>\$664,549</b>	<b>\$63,645,015</b>	<b>\$1,636,347</b>
Percent of Total	100.0%	42.6%	14.0%	19.1%	4.3%	7.0%	0.1%	12.5%	0.3%
<b>Metrorail Operating Subsidy</b>									
Base Allocation	\$353,346,841	\$122,099,942	\$64,806,946	\$56,536,812	\$17,131,871	\$34,424,429	\$1,122,668	\$56,306,502	\$917,670
Max Fare Subsidy	\$7,976,432	\$852,701	\$3,114,556	\$1,435,083	\$325,160	\$223,441	\$64,435	\$1,930,610	\$30,445
<b>Subtotal</b>	<b>\$361,323,273</b>	<b>\$122,952,643</b>	<b>\$67,921,502</b>	<b>\$57,971,896</b>	<b>\$17,457,031</b>	<b>\$34,647,871</b>	<b>\$1,187,103</b>	<b>\$58,237,112</b>	<b>\$948,115</b>
Percent of Total	100.0%	34.0%	18.8%	16.0%	4.8%	9.6%	0.3%	16.1%	0.3%
<b>MetroAccess Operating Subsidy</b>									
MetroAccess Subsidy	\$110,801,107	\$25,536,904	\$22,233,130	\$47,561,043	\$831,639	\$831,057	\$306,393	\$13,416,605	\$84,335
<b>Subtotal</b>	<b>\$110,801,107</b>	<b>\$25,536,904</b>	<b>\$22,233,130</b>	<b>\$47,561,043</b>	<b>\$831,639</b>	<b>\$831,057</b>	<b>\$306,393</b>	<b>\$13,416,605</b>	<b>\$84,335</b>
Percent of Total	100.0%	23.0%	20.1%	42.9%	0.8%	0.8%	0.3%	12.1%	0.1%
<b>Net Operating Subsidy</b>	<b>\$979,545,246</b>	<b>\$364,558,631</b>	<b>\$161,355,187</b>	<b>\$202,358,620</b>	<b>\$40,279,668</b>	<b>\$70,867,564</b>	<b>\$2,158,046</b>	<b>\$135,298,733</b>	<b>\$2,668,797</b>
Percent of Total	100.0%	37.2%	16.5%	20.7%	4.1%	7.2%	0.2%	13.8%	0.3%
<b>Debt Service</b>									
Metro Matters Debt Service	\$21,177,944	\$10,673,684	\$4,945,050	\$5,506,266	—	—	—	—	\$52,944
<b>Total Debt Service</b>	<b>\$21,177,944</b>	<b>\$10,673,684</b>	<b>\$4,944,050</b>	<b>\$5,506,266</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$52,944</b>
<b>Jurisdictional Operating Funding</b>	<b>\$1,000,723,190</b>	<b>\$375,232,315</b>	<b>\$166,300,237</b>	<b>\$207,864,886</b>	<b>\$40,279,668</b>	<b>\$70,867,564</b>	<b>\$2,158,046</b>	<b>\$135,298,733</b>	<b>\$2,721,742</b>



**FY2018 Capital Funding**

Metro's FY2018-2023 Capital Improvement Program (CIP) financial plan relies on a forecasted investment of \$7.2 billion from the federal government, state and local government partners, planned long-term financing and other sources. Within the \$7.2 billion six-year plan, Metro is projecting:

- \$2.8 billion from federal grant funding
- State and local contributions (for matching of federal grants and for system performance funds) of \$3.3 billion

- Planned long-term financing during the period totaling \$850 million
- Other resources, including Metropolitan Washington Airports Authority (MWAA) funding for the Silver Line and new rail cars, jurisdictional projects, and other miscellaneous funding sources, totaling \$308 million.

Additional information about capital funding sources is included in Chapter 4 - FY2018 Capital Budget.

**FY2018-2023 Capital Improvement Program**

<i>(Dollars in Millions)</i>	<b>FY2018 Budget</b>	<b>FY2019 Plan</b>	<b>FY2020 Plan</b>	<b>FY2021 Plan</b>	<b>FY2022 Plan</b>	<b>FY2023 Plan</b>	<b>6 Year Total</b>
<b>Federal</b>							
Federal Formula Programs	\$301.1	\$302.7	\$302.7	\$302.7	\$302.7	\$302.7	\$1,814.4
Federal PRIIA	148.5	148.5	148.5	148.5	148.5	148.5	891.0
Other Federal Grants	10.8	9.5	7.2	7.8	8.0	8.3	51.6
<b>Subtotal Federal</b>	<b>460.5</b>	<b>460.7</b>	<b>458.4</b>	<b>458.9</b>	<b>459.2</b>	<b>459.5</b>	<b>2,757.1</b>
Match to Federal Formula	75.5	76.3	76.0	77.4	75.8	75.9	456.9
System Performance	135.0	344.8	421.8	419.0	293.7	269.8	1,884.0
State and Local PRIIA	148.5	148.5	148.5	148.5	148.5	148.5	891.0
Other State and Local	15.3	4.5	3.9	4.0	4.1	4.2	36.0
<b>Subtotal State and Local</b>	<b>374.4</b>	<b>574.0</b>	<b>650.1</b>	<b>649.0</b>	<b>522.1</b>	<b>498.3</b>	<b>3,267.9</b>
MWAA	118.2	33.2	32.2	69.2	35.2	5.0	293.0
Other	6.0	8.0	1.0	0.0	0.0	0.0	15.0
Long-Term Financing	291.0	202.7	132.1	150.0	7.5	66.7	850.0
<b>Total</b>	<b>1,250.0</b>	<b>1,278.6</b>	<b>1,273.8</b>	<b>1,327.1</b>	<b>1,024.0</b>	<b>1,029.5</b>	<b>7,183.0</b>
Financing Authorized in Prior Years	284.2	0.0	0.0	0.0	0.0	0.0	284.2
<b>Grand Total</b>	<b>\$1,534.2</b>	<b>\$1,278.6</b>	<b>\$1,273.8</b>	<b>\$1,327.1</b>	<b>\$1,024.0</b>	<b>\$1,029.5</b>	<b>\$7,467.2</b>

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## Chapter 3 - Operating Budget



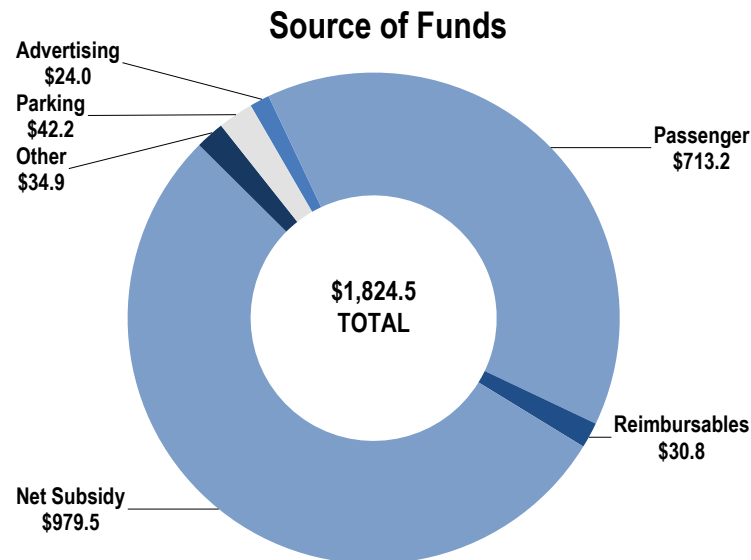
Twinbrook Metro Station

## Introduction

The Operating Budget funds costs associated with Metrobus, Metrorail, MetroAccess and operating reimbursable projects. In total the operating budget is \$1.82 billion, a 2.5 percent increase from the FY2017 budget.

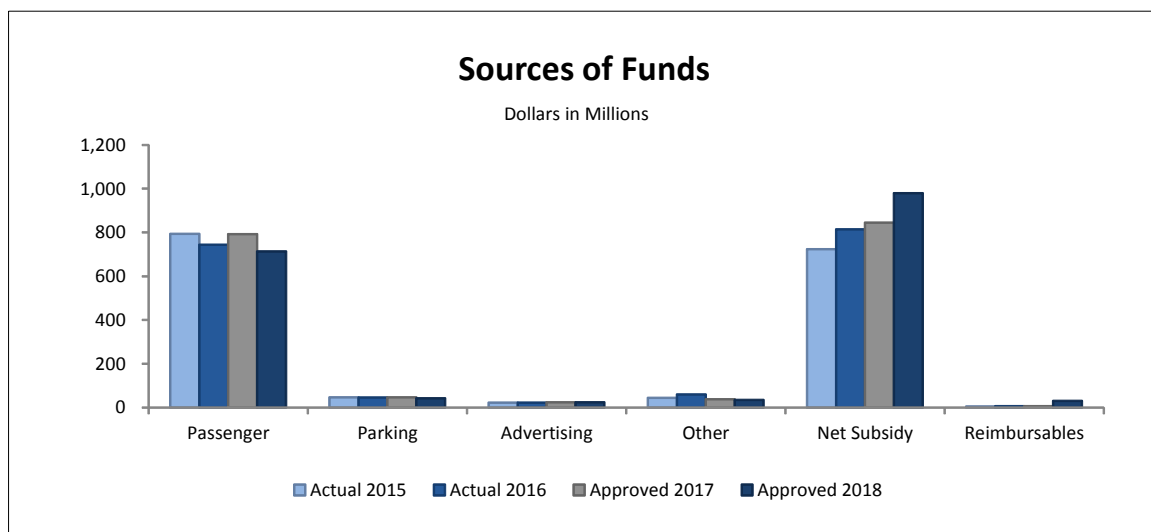
## Sources of Funds

- The largest source of funding is from the net local subsidy of \$979.5 million or 53.7 percent of total expenses.
- The second largest source of funding is passenger fare revenue at \$713.2 million or 39.1 percent from Metrobus, Metrorail and MetroAccess.
- The remaining \$131.8 million comes from parking fees, reimbursable projects, advertising, fiber optic leases and other revenues.



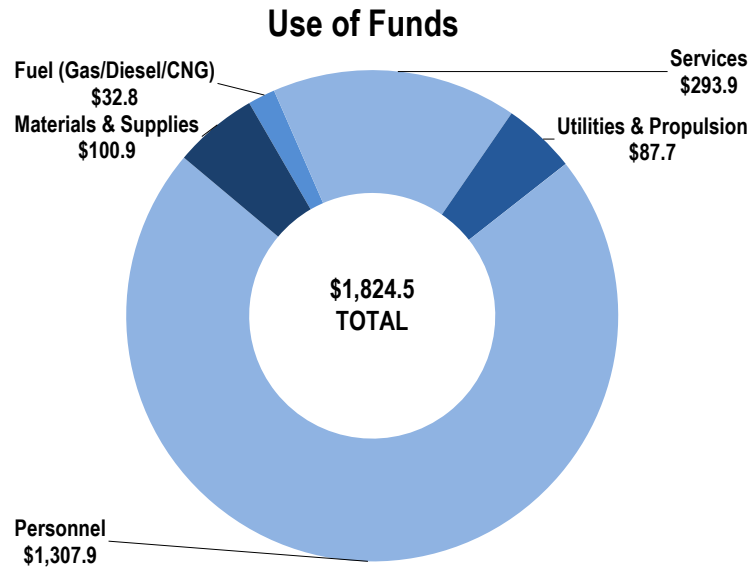
## FY2015-FY2018

Net local subsidy remained flat from FY2016 to FY2017. From FY2017 to FY2018, net subsidy funding increases by \$134.2 million or 15.9 percent.



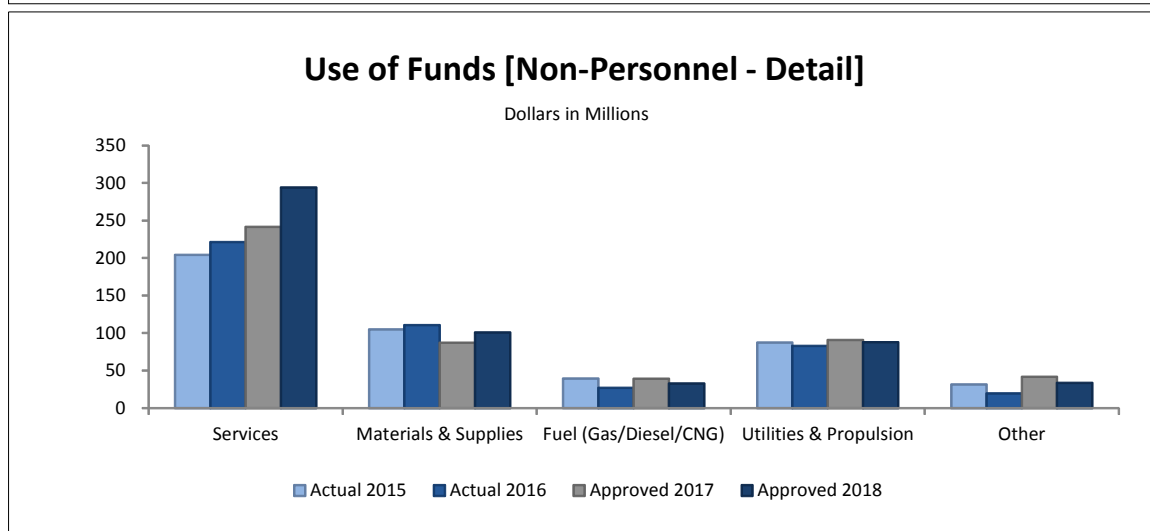
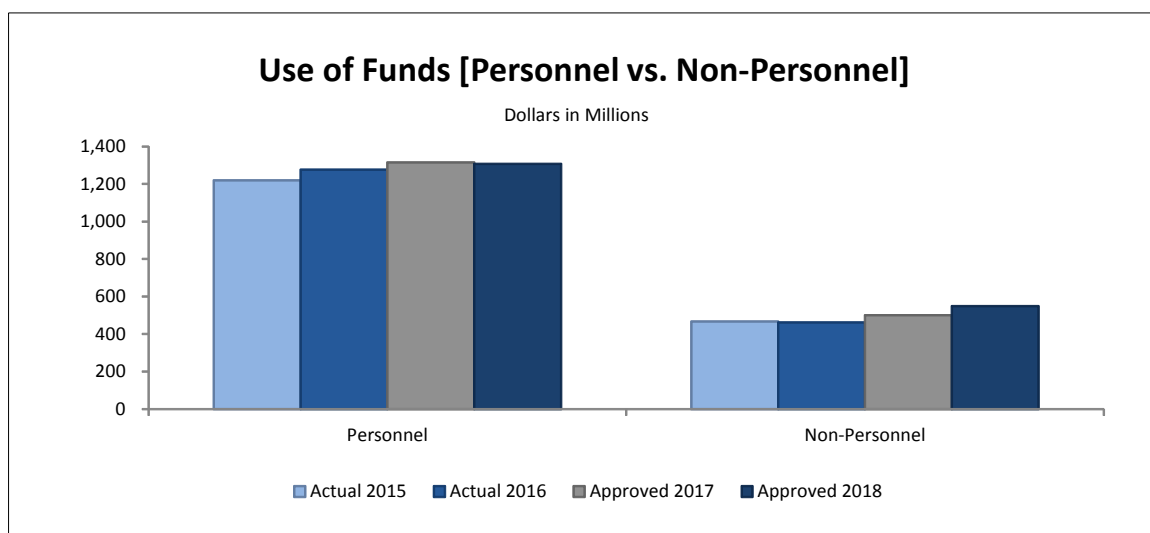
## Uses of Funds

- The largest operating budget expense category is Personnel at \$1.3 billion or 71.7 percent, followed by Services at \$293.9 million or 16.1 percent.
- Operating services budget consists primarily of expenses related to professional and technical, contract maintenance, and temporary labor services. The largest service expense is in support of paratransit, which is \$98.5 million in FY2018.
- Materials and Supplies budget are largely comprised of maintenance parts for buses and railcars, track and structure maintenance, elevator and escalator, and general fleet repair for non-revenue vehicles.
- Metro's energy budget (fuel, utilities, and propulsion) consists of propulsion usage by the Metrorail system; diesel, CNG and gasoline for Metrobus, MetroAccess and non-revenue vehicles; and utilities (i.e. electricity, water, phone, and refuse collection) at Metro facilities.



## FY2015-FY2018

- FY2018 operating personnel budget is \$1.3 billion, a decrease of \$7.3 million or 0.6 percent over FY2017.
- This decrease is primarily driven by the elimination of 800 positions. 700 positions were reduced by eliminating positions non-essential to Metro's core business functions of rail, bus, and paratransit services and through improved efficiencies. 100 positions were reduced as a result of approved rail and bus service reductions.
- Fringe benefits are \$422.8 million, an increase of \$3.8 million from FY2017 or 0.9 percent. Increases in health and pension plan contributions were offset by fringe savings associated with position reductions, particularly payroll taxes, and employer cost savings associated with changes in non-represented employee health care plans.
- The decrease in personnel expenses is offset by required safety corrective actions, fiscal impacts associated with contractually obligated collective bargaining agreements, and a decrease in the amount of FTA grant funding of preventive maintenance expenses from \$95 million to \$60 million.
- FY2018 services budget is \$293.9 million, an increase of \$52.1 million, or 21.5 percent over FY2017. This increase is due primarily to safety and reliability improvements, contract cost inflation, paratransit costs, safety and financial compliance requirements, and maintenance costs for new facilities.



**Operating Budget**  
Revenue and Expenses

<i>(Dollars in Thousands)</i>	<b>Actual FY2015</b>	<b>Actual FY2016</b>	<b>Approved FY2017</b>	<b>Approved FY2018</b>	<b>Variance</b>
<b>Revenues</b>					
Passenger	\$781,701	\$724,560	\$774,891	\$693,976	(\$80,915)
Other Passenger	11,570	19,417	17,043	19,215	2,172
Parking	46,513	45,039	47,103	42,164	(4,939)
Advertising	22,422	22,792	23,500	24,000	500
Joint Development	6,161	11,139	7,000	8,000	1,000
Fiber Optics	15,441	15,583	16,500	15,600	(900)
Other	23,323	32,568	13,989	11,278	(2,711)
Interest	24	77	0	0	0
Reimbursables	31,871	28,740	34,197	30,767	(3,431)
<b>Total Revenues</b>	<b>\$939,025</b>	<b>\$899,916</b>	<b>\$934,223</b>	<b>\$845,000</b>	<b>(\$89,224)</b>
<b>Expenses</b>					
Personnel	\$1,219,697	\$1,276,891	\$1,315,144	\$1,307,859	(\$7,285)
Services	204,230	221,230	241,772	293,871	52,099
Materials & Supplies	104,860	110,671	87,027	100,860	13,833
Fuel (Gas/Diesel/CNG)	39,372	26,904	39,227	32,849	(6,378)
Utilities & Propulsion	87,334	82,975	90,924	87,664	(3,260)
Casualty & Liability	28,332	15,916	34,895	28,560	(6,336)
Leases & Rentals	6,183	6,244	6,725	8,329	1,604
Miscellaneous	3,080	3,877	6,829	5,046	(1,784)
Capital Allocation	0	0	(43,000)	(40,493)	2,507
<b>Total Expenses</b>	<b>\$1,693,087</b>	<b>\$1,744,708</b>	<b>\$1,779,545</b>	<b>\$1,824,545</b>	<b>\$45,000</b>
<b>Gross Subsidy</b>	<b>\$754,062</b>	<b>\$844,775</b>	<b>\$845,321</b>	<b>\$979,545</b>	<b>\$134,224</b>
Preventive Maintenance	(30,700)	0	0	0	0
<b>Net Subsidy</b>	<b>\$723,362</b>	<b>\$844,775</b>	<b>\$845,321</b>	<b>\$979,545</b>	<b>\$134,224</b>
Cost Recovery Ratio	55.5%	51.6%	52.5%	46.3%	-6.2%

## Operating Expense Budget

Authority Wide

<i>(Dollars in Thousands)</i>	Actual 2015	Actual 2016	Approved 2017	Approved 2018	Variance	% Change
<b>Salaries</b>	\$253,743	\$276,059	\$298,678	\$298,797	\$119	0%
<b>Wages</b>	\$486,205	\$509,102	\$520,084	\$504,832	(\$15,252)	-3%
<b>Overtime</b>	\$70,417	\$81,138	\$77,431	\$81,404	\$3,973	5%
<b>Total Salaries and Wages</b>	<b>\$810,366</b>	<b>\$866,298</b>	<b>\$896,192</b>	<b>\$885,032</b>	<b>(\$11,160)</b>	<b>-1%</b>
<b>Fringes</b>	<b>\$409,331</b>	<b>\$410,592</b>	<b>\$418,952</b>	<b>\$422,827</b>	<b>\$3,875</b>	<b>1%</b>
Fringe Health	(681)	(3,441)	181,510	184,308	2,798	
Fringe Pension	0	(1)	137,727	140,904	3,177	
Other Fringe Benefits	387,735	391,527	74,140	71,886	(2,254)	
Workman Compensation	22,277	22,507	25,576	25,730	154	
<b>Total Personnel Cost</b>	<b>\$1,219,697</b>	<b>\$1,276,891</b>	<b>\$1,315,144</b>	<b>\$1,307,859</b>	<b>(\$7,285)</b>	<b>-1%</b>
<b>Services</b>	<b>\$204,230</b>	<b>\$221,230</b>	<b>\$241,772</b>	<b>\$293,871</b>	<b>\$52,099</b>	<b>22%</b>
Management Fee	143	209	428	433	5	
Professional & Technical	21,545	30,519	44,088	65,574	21,486	
Temporary Help	3,286	2,852	3,324	2,274	(1,051)	
Contract Maintenance	56,181	61,559	69,066	82,388	13,323	
Custodial Services	46	5	85	1,524	1,439	
Paratransit	92,826	98,486	92,704	98,520	5,816	
Services - Other	30,204	27,601	32,078	43,159	11,081	
<b>Materials &amp; Supplies</b>	<b>\$104,860</b>	<b>\$110,671</b>	<b>\$87,027</b>	<b>\$100,860</b>	<b>\$13,833</b>	<b>16%</b>
Fuels and Lubricants	2,241	2,373	2,541	2,682	141	
Tires	5,821	6,068	5,886	6,034	149	
Materials & Supplies - Other	96,798	102,230	78,600	92,144	13,544	
<b>Fuel (Gas/Diesel/CNG)</b>	<b>\$39,372</b>	<b>\$26,904</b>	<b>\$39,227</b>	<b>\$32,849</b>	<b>(\$6,378)</b>	<b>-16%</b>
Diesel Fuel	28,081	18,384	24,034	22,542	(1,492)	
Gasoline	9,844	6,901	12,061	7,673	(4,388)	
Clean Natural Gas	1,447	1,619	3,133	2,634	(498)	
<b>Utilities &amp; Propulsion</b>	<b>\$87,334</b>	<b>\$82,975</b>	<b>\$90,924</b>	<b>\$87,664</b>	<b>(\$3,260)</b>	<b>-4%</b>
Electricity	27,574	25,383	29,643	28,843	(800)	
Propulsion	51,305	49,363	50,850	47,937	(2,914)	
Utilities - Other	8,454	8,229	10,431	10,885	454	
<b>Casualty &amp; Liability</b>	<b>\$28,332</b>	<b>\$15,916</b>	<b>\$34,895</b>	<b>\$28,560</b>	<b>(\$6,336)</b>	<b>-18%</b>
Insurance	15,243	12,959	22,347	16,000	(6,347)	
Claims	13,089	2,957	12,548	12,560	11	
<b>Leases</b>	<b>\$6,183</b>	<b>\$6,244</b>	<b>\$6,725</b>	<b>\$8,329</b>	<b>\$1,604</b>	<b>24%</b>
Property	2,021	2,072	2,239	2,255	16	
Equipment	4,162	4,172	4,485	6,074	1,589	
<b>Miscellaneous</b>	<b>\$3,080</b>	<b>\$3,877</b>	<b>(\$36,171)</b>	<b>(\$35,447)</b>	<b>\$723</b>	<b>-2%</b>
Dues and Subscriptions	381	411	514	594	80	
Conferences and Meetings	99	108	335	209	(126)	
Business Travel/Public Hearings	764	708	415	513	98	
Interview & Relocation	1,077	617	1,752	1,109	(643)	
Tolls	0	3	0	3	0	
Advertising	2,702	1,995	2,796	3,149	353	
Other	730	2,648	2,425	1,368	(1,057)	
Reimbursements	(2,673)	(2,615)	(1,408)	(1,900)	(492)	
Capital Allocation	0	0	(43,000)	(40,493)	2,507	
<b>Total Non-Personnel Cost</b>	<b>\$473,391</b>	<b>\$467,817</b>	<b>\$464,400</b>	<b>\$516,686</b>	<b>\$52,285</b>	<b>11%</b>
<b>Total Cost</b>	<b>\$1,693,087</b>	<b>\$1,744,708</b>	<b>\$1,779,545</b>	<b>\$1,824,545</b>	<b>\$45,000</b>	<b>3%</b>

## Operating Budget

## Expenses

<i>(Dollars in Thousands)</i>	Approved FY2018	BUS FY2018	RAIL FY2018	ACCESS FY2018	Reimbursables FY2018
<b>Salaries</b>	<b>\$298,797</b>	<b>\$102,432</b>	<b>\$187,091</b>	<b>\$5,529</b>	<b>\$3,744</b>
<b>Wages</b>	<b>\$504,832</b>	<b>\$235,126</b>	<b>\$269,115</b>	<b>\$427</b>	<b>\$163</b>
<b>Overtime</b>	<b>\$81,404</b>	<b>\$33,527</b>	<b>\$46,836</b>	<b>\$43</b>	<b>\$999</b>
<b>Total Salaries and Wages</b>	<b>\$885,032</b>	<b>\$371,085</b>	<b>\$503,042</b>	<b>\$6,000</b>	<b>\$4,905</b>
<b>Fringes</b>	<b>\$422,827</b>	<b>\$179,166</b>	<b>\$238,899</b>	<b>\$2,882</b>	<b>\$1,880</b>
Fringe Health	184,308	78,054	104,162	1,268	823
Fringe Pension	140,904	59,674	79,635	969	625
Other Fringe Benefits	71,886	30,540	40,560	468	318
Workman Compensation	25,730	10,897	14,542	177	114
<b>Total Personnel Cost</b>	<b>\$1,307,859</b>	<b>\$550,251</b>	<b>\$741,941</b>	<b>\$8,882</b>	<b>\$6,785</b>
<b>Services</b>	<b>\$293,871</b>	<b>\$62,310</b>	<b>\$105,345</b>	<b>\$104,559</b>	<b>\$21,657</b>
Management Fee	433	0	433	0	0
Professional & Technical	65,574	21,089	40,586	3,898	0
Temporary Help	2,274	882	1,348	43	0
Contract Maintenance	82,388	23,127	37,408	486	21,367
Custodial Services	1,524	1,520	4	0	0
Paratransit	98,520	0	0	98,520	0
Services - Other	43,159	15,691	25,567	1,612	290
<b>Materials &amp; Supplies</b>	<b>\$100,860</b>	<b>\$39,192</b>	<b>\$60,790</b>	<b>\$701</b>	<b>\$177</b>
Fuels and Lubricants	2,682	2,085	597	0	0
Tires	6,034	5,761	273	0	0
Materials & Supplies - Other	92,144	31,346	59,920	701	177
<b>Fuel (Gas/Diesel/CNG)</b>	<b>\$32,849</b>	<b>\$23,555</b>	<b>\$2,075</b>	<b>\$5,113</b>	<b>\$2,105</b>
Diesel Fuel	22,542	20,420	377	0	1,745
Gasoline	7,673	861	1,698	5,113	0
Clean Natural Gas	2,634	2,274	0	0	360
<b>Utilities &amp; Propulsion</b>	<b>\$87,664</b>	<b>\$15,425</b>	<b>\$71,670</b>	<b>\$569</b>	<b>\$0</b>
Electricity	28,843	11,328	17,102	412	0
Propulsion	47,937	0	47,937	0	0
Utilities - Other	10,885	4,097	6,632	157	0
<b>Casualty &amp; Liability</b>	<b>\$28,560</b>	<b>\$11,081</b>	<b>\$16,936</b>	<b>\$543</b>	<b>\$0</b>
Insurance	16,000	6,208	9,488	304	0
Claims	12,560	4,873	7,448	239	0
<b>Leases</b>	<b>\$8,329</b>	<b>\$2,255</b>	<b>\$5,196</b>	<b>\$878</b>	<b>\$0</b>
Property	2,255	238	1,246	772	0
Equipment	6,074	2,017	3,951	106	0
<b>Miscellaneous</b>	<b>(\$35,447)</b>	<b>(\$14,270)</b>	<b>(\$20,507)</b>	<b>(\$712)</b>	<b>\$42</b>
Dues and Subscriptions	594	223	359	13	0
Conferences and Meetings	209	57	145	7	0
Business Travel/Public Hearings	513	152	340	21	0
Interview & Relocation	1,109	401	688	20	0
Tolls	3	0	3	0	0
Advertising	3,149	1,304	1,841	5	0
Other	1,368	408	900	18	42
Reimbursements	(1,900)	(1,104)	(771)	(25)	0
Capital Allocation	(40,493)	(15,711)	(24,012)	(769)	0
<b>Total Non-Personnel Cost</b>	<b>\$516,686</b>	<b>\$139,548</b>	<b>\$241,505</b>	<b>\$111,651</b>	<b>\$23,981</b>
<b>Total Cost</b>	<b>\$1,824,545</b>	<b>\$689,799</b>	<b>\$983,447</b>	<b>\$120,533</b>	<b>\$30,767</b>

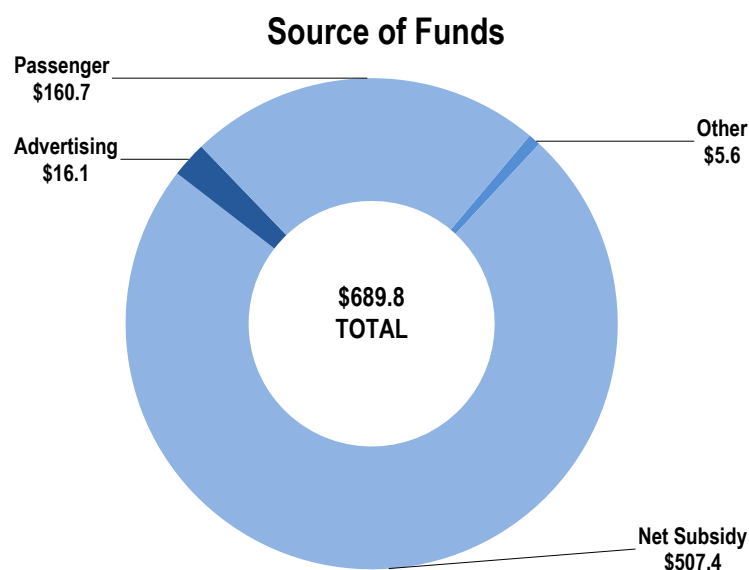
## Operating Budget by Mode: Metrobus

### Sources of Funds

- Metrobus sources of funds consist of revenue (primarily passenger fares and advertising) and subsidy from Metro's jurisdictional partners.
- Total Metrobus revenue in FY2018 is projected at \$182.4 million. The largest revenue source is passenger revenues estimated at \$160.7 million, which includes fares and passes. Passenger revenue is lower than the FY2017 budget due to reduced ridership projections. Based on actual ridership in FY2017 and reduced ridership expectations this fiscal year, FY2018 ridership

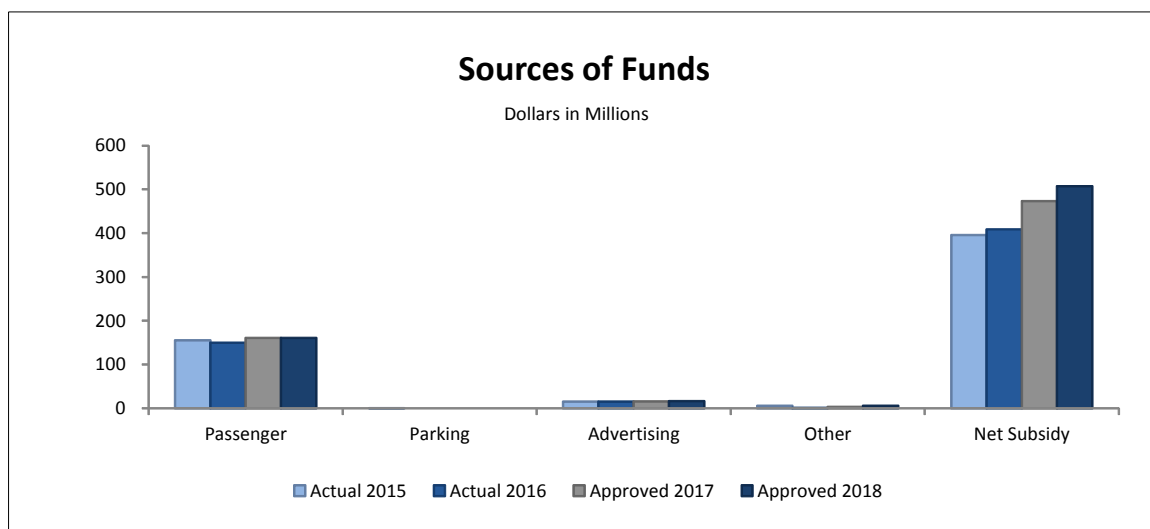
is projected to be 18.6 million trips less than the FY2017 budgeted levels. This projected decrease incorporates the rightsizing of bus services through approved service changes, declining ridership trends, and the impact of approved fare increases.

- Advertising revenue allocated to Metrobus is projected to generate \$16.1 million. This amount is slightly higher than the FY2017 budget of \$15.7 million.
- Other revenue, which includes rental revenue, third-party reimbursements, and other miscellaneous sources, will contribute \$5.6 million in FY2018.



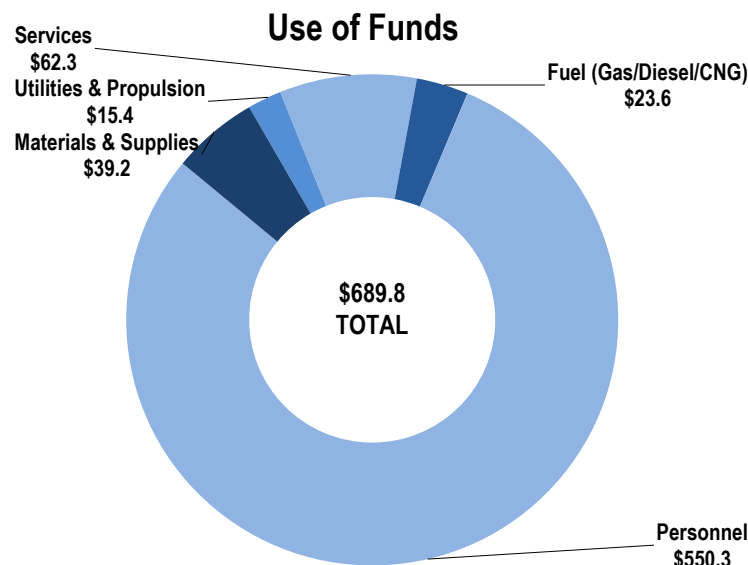
### FY2015 - FY2018

Net local subsidy for Metrobus is budgeted to grow by \$33.9 million or 7.2 percent to \$507.4 million from FY2017 to FY2018. Metrobus subsidy is 51.8 percent of the total FY2018 Metro net operating subsidy.



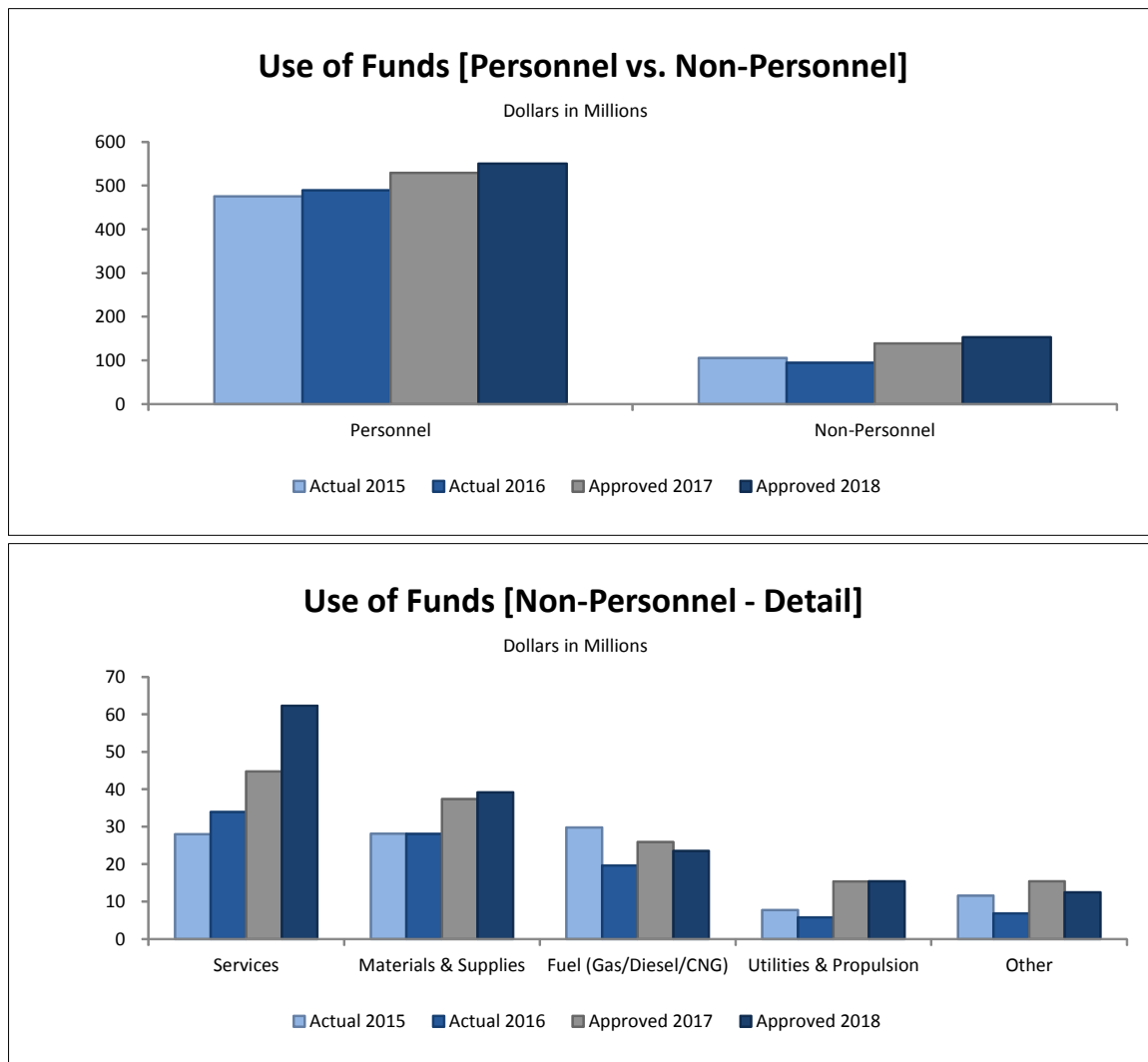
## Uses of Funds

- Personnel expenses are the largest portion of the Metrobus budget. For FY2018, personnel cost is estimated at \$550.3 million or 79.8 percent of the Metrobus budget, which represents an increase of \$21.2 million over the FY2017 budget. This increase is due to a reduction of FTA grant funding of bus preventive maintenance costs, which transfers costs from the capital to the operating budget. The increase is partially offset by headcount reductions due to improved efficiencies and eliminated redundancies, as well as approved bus service changes.
- Services are budgeted at \$62.3 million, which is \$17.6 million greater than the FY2017 budget. The increase reflects projected inflation associated with contract maintenance costs, as well as increases associated with safety and reliability service improvements and compliance requirements.
- Materials and Supplies are budgeted at \$39.2 million, which is \$1.8 million greater than the FY2017 budget.
- Energy costs, which include diesel, Clean Natural Gas (CNG), gasoline, and utilities, are budgeted at \$39.0 million. This is \$2.3 million lower than the FY2017 budget primarily due to lower fuel costs and the impact of approved service reductions.
- Other expenses for Metrobus total a credit of \$0.9 million in FY2018. This represents a decrease of \$1.7 million compared to the FY2017 budget primarily due to the reduction in Casualty and Liability insurance expense as a result of lower expected premiums costs.



**FY2015 - FY2018**

- Personnel expenses grew by \$14.1 million or 3.0 percent from FY2015 to FY2016 and are projected to grow in FY2018 by \$21.2 million or 4.0 percent from the FY2017 budget. The increase is primarily due to a reduction of FTA grant funding of bus preventive maintenance costs offset by workforce reductions associated with efficiencies, eliminated redundancies and approved service reductions.
- Services increased by \$6.0 million or 21.1 percent from FY2015 to FY2016 and are projected to increase by \$17.6 million or 39.3 percent from the FY2017 budget to FY2018. The increase accounts for projected inflation associated with contract maintenance costs, as well as increases associated with safety and reliability service improvements and compliance requirements.
- Materials and Supplies decreased by less than \$100 thousand or 0.3 percent from FY2015 to FY2016 and are projected to increase by \$1.8 million or 4.7 percent from the FY2017 budget to FY2018.
- Energy costs decreased by \$12.2 million or 32.4 percent from FY2015 to FY2016 due to volume decrease and lower rates, and are projected to decrease by \$2.3 million or 5.6 percent from the FY2017 budget to FY2018 primarily due to approved service reductions and lower fuel costs.
- Other expenses decreased by \$1.7 million from the FY2017 budget to FY2018 primarily due to projected casualty and liability insurance savings resulting from decreases to expected settlement payments.



**Metrobus**  
Revenue and Expenses

<i>(Dollars in Thousands)</i>	<b>Actual FY2015</b>	<b>Actual FY2016</b>	<b>Approved FY2017</b>	<b>Approved FY2018</b>	<b>Variance</b>
<b>Revenues</b>					
Passenger	\$145,691	\$141,053	\$152,120	\$146,075	(\$6,045)
Other Passenger	9,480	8,991	8,825	14,584	5,759
Parking	410	0	0	0	0
Advertising	14,956	15,273	15,699	16,080	381
Joint Development	0	0	0	0	0
Fiber Optics	0	0	0	0	0
Other	5,569	681	3,080	5,639	2,559
Interest	17	67	0	0	0
Reimbursables	0	0	0	0	0
<b>Total Revenues</b>	<b>\$176,123</b>	<b>\$166,066</b>	<b>\$179,724</b>	<b>\$182,378</b>	<b>\$2,654</b>
<b>Expenses</b>					
Personnel	\$475,746	\$489,137	\$529,015	\$550,251	\$21,235
Services	28,009	33,970	44,734	62,310	17,576
Materials & Supplies	28,169	28,096	37,429	39,192	1,763
Fuel (Gas/Diesel/CNG)	29,813	19,662	25,927	23,555	(2,371)
Utilities & Propulsion	7,773	5,757	15,361	15,425	64
Casualty & Liability	10,855	6,169	13,547	11,081	(2,466)
Leases & Rentals	1,262	1,502	2,045	2,255	210
Miscellaneous	773	693	1,907	1,441	(466)
Capital Allocation	0	0	(16,684)	(15,711)	973
<b>Total Expenses</b>	<b>\$582,399</b>	<b>\$584,986</b>	<b>\$653,281</b>	<b>\$689,799</b>	<b>\$36,518</b>
<b>Gross Subsidy</b>	<b>\$406,276</b>	<b>\$418,920</b>	<b>\$473,556</b>	<b>\$507,421</b>	<b>\$33,864</b>
Preventive Maintenance	(10,438)	0	0	0	0
<b>Net Subsidy</b>	<b>\$395,838</b>	<b>\$418,920</b>	<b>\$473,556</b>	<b>\$507,421</b>	<b>\$33,864</b>
Cost Recovery Ratio	30.2%	28.4%	27.5%	26.4%	-1.1%

## Operating Expense Budget

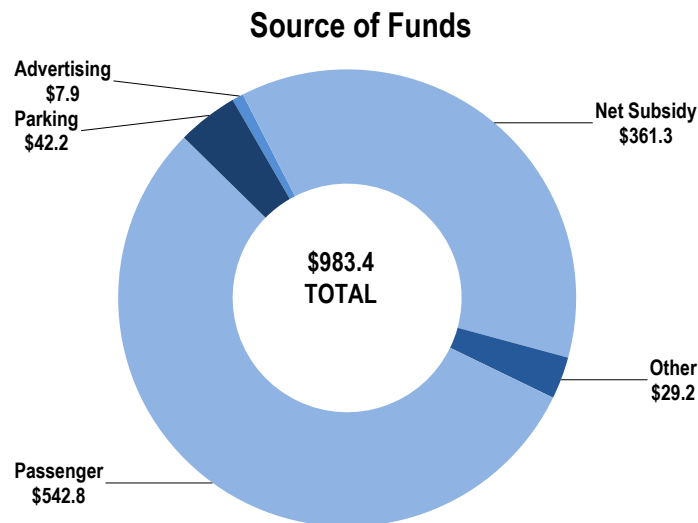
Metrobus

<i>(Dollars in Thousands)</i>	Actual 2015	Actual 2016	Approved 2017	Approved 2018	Variance	% Change
<b>Salaries</b>	\$69,507	\$74,559	\$100,547	\$102,432	\$1,886	2%
<b>Wages</b>	\$213,077	\$225,109	\$224,440	\$235,126	\$10,686	5%
<b>Overtime</b>	\$31,007	\$31,466	\$35,504	\$33,527	(\$1,977)	-6%
<b>Total Salaries and Wages</b>	<b>\$313,591</b>	<b>\$331,134</b>	<b>\$360,491</b>	<b>\$371,085</b>	<b>\$10,594</b>	<b>3%</b>
<b>Fringes</b>	<b>\$162,155</b>	<b>\$158,003</b>	<b>\$168,525</b>	<b>\$179,166</b>	<b>\$10,641</b>	<b>6%</b>
Fringe Health	(251)	(67)	73,023	78,054	5,031	
Fringe Pension	0	(1)	55,409	59,674	4,266	
Other Fringe Benefits	153,500	149,339	30,152	30,540	388	
Workman Compensation	8,906	8,732	9,941	10,897	956	
<b>Total Personnel Cost</b>	<b>\$475,746</b>	<b>\$489,137</b>	<b>\$529,015</b>	<b>\$550,251</b>	<b>\$21,235</b>	<b>4%</b>
<b>Services</b>	<b>\$28,009</b>	<b>\$33,970</b>	<b>\$44,734</b>	<b>\$62,310</b>	<b>\$17,576</b>	<b>39%</b>
Management Fee	0	22	0	0	0	
Professional & Technical	6,991	9,265	12,536	21,089	8,554	
Temporary Help	382	500	1,274	882	(392)	
Contract Maintenance	16,715	19,260	19,029	23,127	4,099	
Custodial Services	46	4	85	1,520	1,436	
Paratransit	29	56	0	0	0	
Services - Other	3,848	4,864	11,812	15,691	3,879	
<b>Materials &amp; Supplies</b>	<b>\$28,169</b>	<b>\$28,096</b>	<b>\$37,429</b>	<b>\$39,192</b>	<b>\$1,763</b>	<b>5%</b>
Fuels and Lubricants	1,546	1,609	1,794	2,085	291	
Tires	5,695	5,970	5,585	5,761	176	
Materials & Supplies - Other	20,927	20,516	30,050	31,346	1,296	
<b>Fuel (Gas/Diesel/CNG)</b>	<b>\$29,813</b>	<b>\$19,662</b>	<b>\$25,927</b>	<b>\$23,555</b>	<b>(\$2,371)</b>	<b>-9%</b>
Diesel Fuel	27,046	17,596	21,677	20,420	(1,257)	
Gasoline	1,320	447	1,477	861	(616)	
Clean Natural Gas	1,447	1,619	2,773	2,274	(498)	
<b>Utilities &amp; Propulsion</b>	<b>\$7,773</b>	<b>\$5,757</b>	<b>\$15,361</b>	<b>\$15,425</b>	<b>\$64</b>	<b>0%</b>
Electricity	4,065	3,532	11,501	11,328	(173)	
Propulsion	1,133	9	0	0	0	
Utilities - Other	2,576	2,216	3,860	4,097	237	
<b>Casualty &amp; Liability</b>	<b>\$10,855</b>	<b>\$6,169</b>	<b>\$13,547</b>	<b>\$11,081</b>	<b>(\$2,466)</b>	<b>-18%</b>
Insurance	5,840	5,023	8,678	6,208	(2,470)	
Claims	5,015	1,146	4,869	4,873	4	
<b>Leases</b>	<b>\$1,262</b>	<b>\$1,502</b>	<b>\$2,045</b>	<b>\$2,255</b>	<b>\$210</b>	<b>10%</b>
Property	380	449	575	238	(337)	
Equipment	882	1,054	1,470	2,017	547	
<b>Miscellaneous</b>	<b>\$773</b>	<b>\$693</b>	<b>(\$14,777)</b>	<b>(\$14,270)</b>	<b>\$507</b>	<b>-3%</b>
Dues and Subscriptions	146	163	196	223	27	
Conferences and Meetings	36	39	111	57	(54)	
Business Travel/Public Hearings	74	74	122	152	30	
Interview & Relocation	409	239	681	401	(279)	
Advertising	1,640	1,642	1,073	1,304	231	
Other	59	217	317	408	91	
Reimbursements	(1,590)	(1,680)	(593)	(1,104)	(511)	
Capital Allocation	0	0	(16,684)	(15,711)	973	
<b>Total Non-Personnel Cost</b>	<b>\$106,653</b>	<b>\$95,849</b>	<b>\$124,265</b>	<b>\$139,548</b>	<b>\$15,283</b>	<b>12%</b>
<b>Total Cost</b>	<b>\$582,399</b>	<b>\$584,986</b>	<b>\$653,281</b>	<b>\$689,799</b>	<b>\$36,518</b>	<b>6%</b>

## Operating Budget by Mode: Metrorail

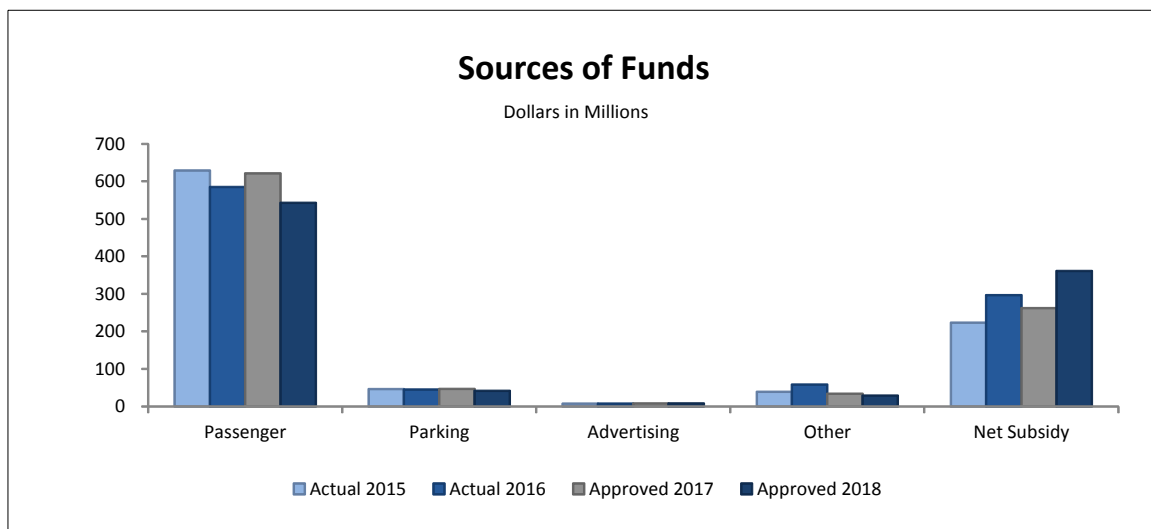
### Sources of Funds

- Metrorail sources of funds consist of revenue (primarily passenger fares and parking fees, as well as advertising and lease revenues) and subsidy from Metro's jurisdictional partners.
- Total Metrorail revenue in FY2018 is projected at \$622.1 million. Passenger revenues, including fares and passes, are projected at \$542.8 million. This is a decrease of \$78.2 million from the FY2017 budget. The decrease in passenger revenues is due to a projected reduction in ridership of 25.0 million passenger trips from the FY2017 budget. Lower actual ridership in FY2017 is expected to continue in FY2018, and is further impacted by fare increases, approved service reductions, and continued service adjustments related to preventive maintenance programs and capital projects to rehabilitate the rail system.
- Parking revenue at Metrorail facilities is projected to contribute \$42.2 million in revenue. This amount is \$4.9 million lower than the FY2017 budget due to declining utilization related to decreased rail ridership.
- Advertising revenue attributed to Metrorail is projected to generate \$7.9 million in FY2018. This amount is \$0.1 million higher than the FY2017 budget.
- Other Revenue, which includes Joint Development, Fiber Optics, and other miscellaneous revenue sources, is projected to contribute \$29.2 million in FY2018.



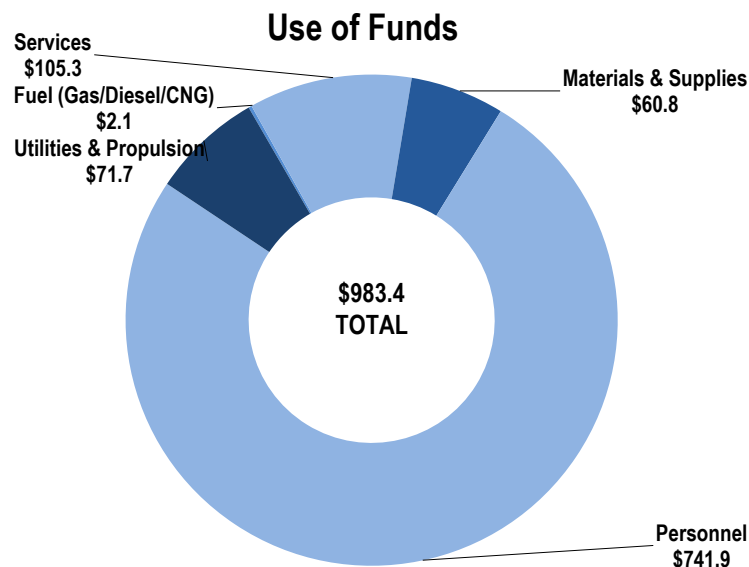
### FY2015 - FY2018

Metrorail passenger fare revenue, the main source of revenue, is projected at \$542.8 million in FY2018. The net local subsidy for FY2018 is \$361.3 million, an increase of \$99.2 million from FY2017. Metrorail subsidy is 36.9 percent of the total FY2018 Metro net operating subsidy.



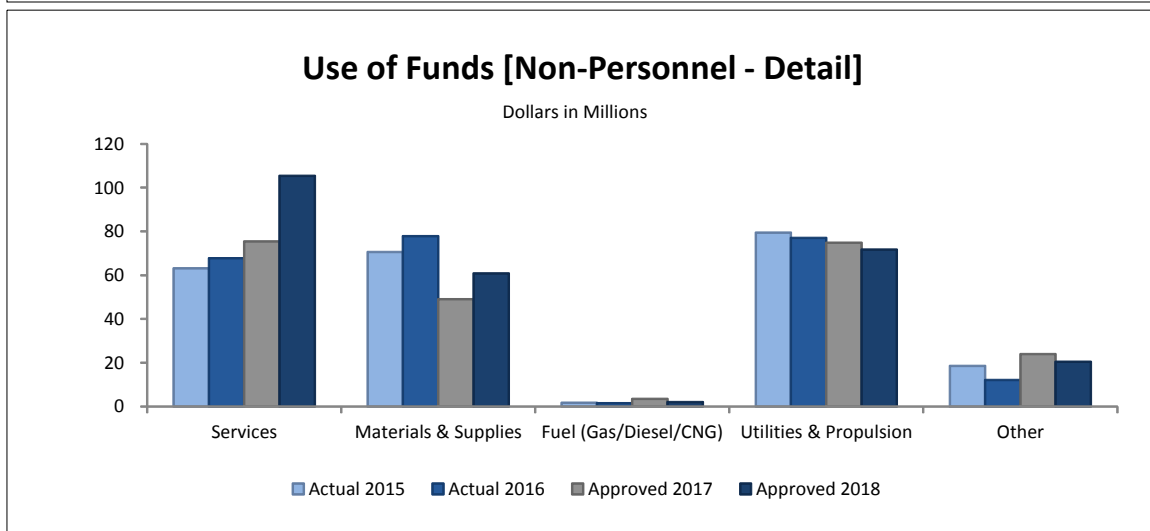
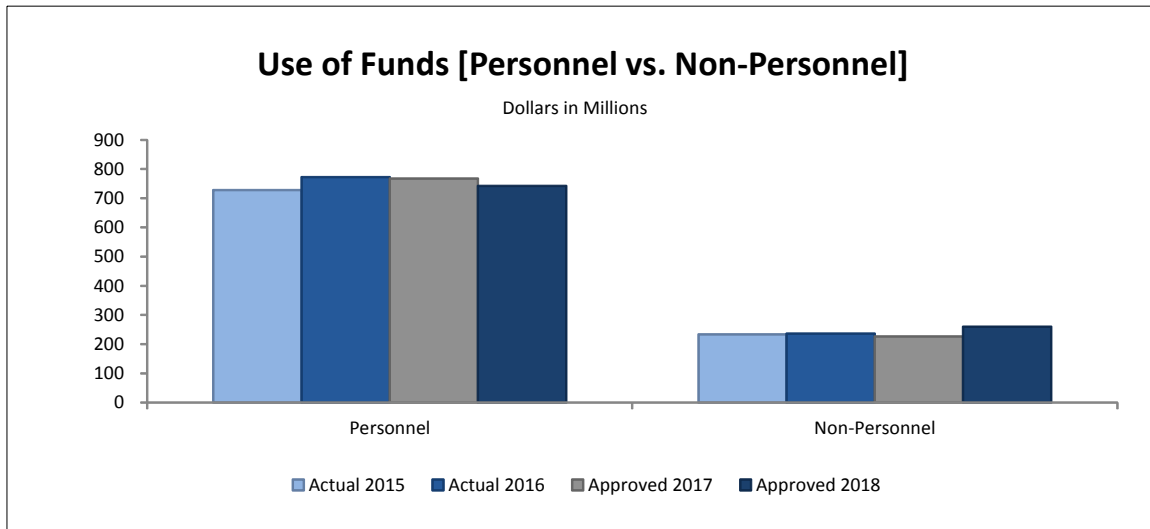
## Uses of Funds

- Personnel expenses are the largest portion of the Metrorail budget for FY2018, personnel costs is estimated at \$741.9 million, or 75.4 percent of the Metrorail budget, which represents a decrease of \$25.7 million from the FY2017 budget. This decrease is largely due to reductions in workforce through management actions to improve efficiency and approved service reductions. The decrease is partially offset by contractually obligated progression increases in salaries and wages.
- Services are budgeted at \$105.3 million, which is \$30.0 million higher than the FY2017 budget. The increase is due to various services to support safety initiatives and service reliability.
- Materials and Supplies are budgeted at \$60.8 million, which is \$11.8 million higher than the FY2017 budget. This increase is primarily driven by railcar maintenance and repair.
- Energy costs which include fuel, propulsion, and utilities are budgeted at \$73.7 million. This amount is \$4.5 million lower than the FY2017 budget. Energy usage is projected to decrease as a result of service reductions.
- Other expenses for Metrorail total \$1.6 million, a decrease of \$0.6 million from the FY2017 budget.



**FY2015 - FY2018**

- Personnel cost increased \$41.6 million or 5.7 percent from FY2015 to FY2016, and are projected to decrease in FY2018 by \$25.7 million or 3.4 percent from the FY2017 budget, primarily as a result of workforce reductions through improved efficiencies and through Metrorail service right-sizing.
- Services increased from FY2015 to FY2016 to \$4.5 million or 7.1 percent, and are projected to increase \$30.0 million or 39.8 percent from the FY2017 budget to FY2018. The increase accounts for projected inflation associated with contract maintenance costs, as well as increases associated with safety initiatives, reliability service improvements and compliance requirements.
- Material and Supplies increased \$7.3 million or 10.3 percent, from FY2015 to FY2016, and are projected to increase \$11.8 million or 24.1 percent from the FY2017 budget to FY2018 to support railcar and track maintenance to improve safety and reliability.



**Metrorail**  
Revenue and Expenses

<i>(Dollars in Thousands)</i>	<b>Actual FY2015</b>	<b>Actual FY2016</b>	<b>Approved FY2017</b>	<b>Approved FY2018</b>	<b>Variance</b>
<b>Revenues</b>					
Passenger	\$626,965	\$574,351	\$612,800	\$538,169	(\$74,631)
Other Passenger	2,090	10,425	8,218	4,631	(3,587)
Parking	46,103	45,039	47,103	42,164	(4,939)
Advertising	7,466	7,519	7,801	7,920	119
Joint Development	6,161	11,139	7,000	8,000	1,000
Fiber Optics	15,441	15,583	16,500	15,600	(900)
Other	17,754	31,887	10,909	5,639	(5,270)
Interest	6	10	0	0	0
Reimbursables	0	0	0	0	0
<b>Total Revenues</b>	<b>\$721,986</b>	<b>\$695,953</b>	<b>\$710,330</b>	<b>\$622,123</b>	<b>(\$88,207)</b>
<b>Expenses</b>					
Personnel	\$727,798	\$772,798	\$767,668	\$741,941	(\$25,727)
Services	63,178	67,777	75,346	105,345	30,000
Materials & Supplies	70,535	77,819	48,978	60,790	11,812
Fuel (Gas/Diesel/CNG)	1,703	1,514	3,449	2,075	(1,374)
Utilities & Propulsion	79,487	77,088	74,800	71,670	(3,129)
Casualty & Liability	16,926	9,451	20,682	16,936	(3,746)
Leases & Rentals	4,151	3,943	3,838	5,196	1,358
Miscellaneous	1,615	2,663	3,242	3,505	263
Capital Allocation	0	0	(25,499)	(24,012)	1,487
<b>Total Expenses</b>	<b>\$965,392</b>	<b>\$1,013,054</b>	<b>\$972,504</b>	<b>\$983,447</b>	<b>\$10,943</b>
<b>Gross Subsidy</b>	<b>\$243,406</b>	<b>\$317,101</b>	<b>\$262,173</b>	<b>\$361,323</b>	<b>\$99,150</b>
Preventive Maintenance	(20,262)	0	0	0	0
<b>Net Subsidy</b>	<b>\$223,144</b>	<b>\$317,101</b>	<b>\$262,173</b>	<b>\$361,323</b>	<b>\$99,150</b>
Cost Recovery Ratio	74.8%	68.7%	73.0%	63.3%	-9.8%

## Operating Expense Budget

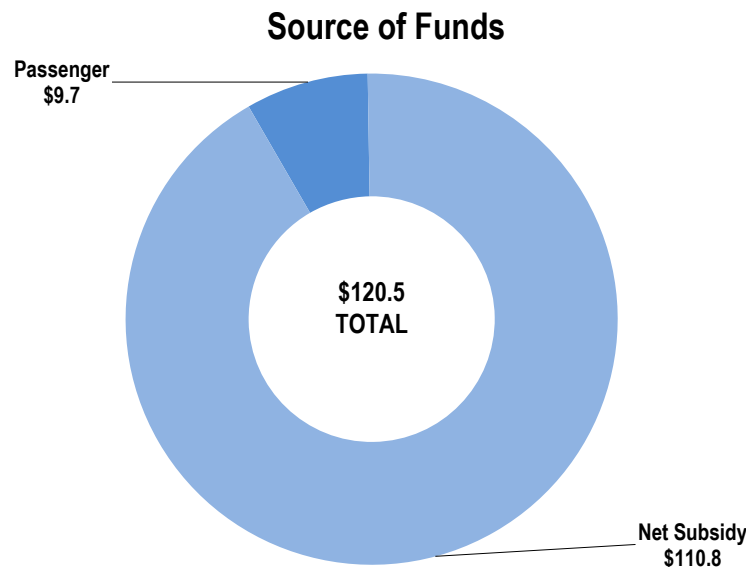
Metrorail

<i>(Dollars in Thousands)</i>	Actual 2015	Actual 2016	Approved 2017	Approved 2018	Variance	% Change
<b>Salaries</b>	\$175,202	\$192,405	\$187,319	\$187,091	(\$228)	0%
<b>Wages</b>	\$272,600	\$283,524	\$294,437	\$269,115	(\$25,321)	-9%
<b>Overtime</b>	\$38,070	\$48,853	\$41,381	\$46,836	\$5,455	13%
<b>Total Salaries and Wages</b>	<b>\$485,871</b>	<b>\$524,781</b>	<b>\$523,137</b>	<b>\$503,042</b>	<b>(\$20,094)</b>	<b>-4%</b>
<b>Fringes</b>	<b>\$241,926</b>	<b>\$248,018</b>	<b>\$244,531</b>	<b>\$238,899</b>	<b>(\$5,632)</b>	<b>-2%</b>
Fringe Health	(430)	(3,374)	105,963	104,162	(1,801)	
Fringe Pension	0	0	80,403	79,635	(768)	
Other Fringe Benefits	228,993	238,044	43,010	40,560	(2,450)	
Workman Compensation	13,363	13,348	15,155	14,542	(613)	
<b>Total Personnel Cost</b>	<b>\$727,798</b>	<b>\$772,798</b>	<b>\$767,668</b>	<b>\$741,941</b>	<b>(\$25,727)</b>	<b>-3%</b>
<b>Services</b>	<b>\$63,178</b>	<b>\$67,777</b>	<b>\$75,346</b>	<b>\$105,345</b>	<b>\$30,000</b>	<b>40%</b>
Management Fee	143	186	428	433	5	
Professional & Technical	12,353	18,163	28,068	40,586	12,518	
Temporary Help	2,885	2,332	1,988	1,348	(640)	
Contract Maintenance	22,550	25,296	26,336	37,408	11,072	
Custodial Services	1	1	0	4	0	
Paratransit	0	9	0	0	0	
Services - Other	25,246	21,790	18,525	25,567	7,042	
<b>Materials &amp; Supplies</b>	<b>\$70,535</b>	<b>\$77,819</b>	<b>\$48,978</b>	<b>\$60,790</b>	<b>\$11,812</b>	<b>24%</b>
Fuels and Lubricants	694	764	747	597	(150)	
Tires	125	97	300	273	(27)	
Materials & Supplies - Other	69,715	76,958	47,930	59,920	11,989	
<b>Fuel (Gas/Diesel/CNG)</b>	<b>\$1,703</b>	<b>\$1,514</b>	<b>\$3,449</b>	<b>\$2,075</b>	<b>(\$1,374)</b>	<b>-40%</b>
Diesel Fuel	3	54	454	377	(77)	
Gasoline	1,700	1,460	2,995	1,698	(1,297)	
Clean Natural Gas	0	0	0	0	0	
<b>Utilities &amp; Propulsion</b>	<b>\$79,487</b>	<b>\$77,088</b>	<b>\$74,800</b>	<b>\$71,670</b>	<b>(\$3,129)</b>	<b>-4%</b>
Electricity	23,477	21,787	17,554	17,102	(452)	
Propulsion	50,172	49,354	50,850	47,937	(2,914)	
Utilities - Other	5,838	5,947	6,395	6,632	237	
<b>Casualty &amp; Liability</b>	<b>\$16,926</b>	<b>\$9,451</b>	<b>\$20,682</b>	<b>\$16,936</b>	<b>(\$3,746)</b>	<b>-18%</b>
Insurance	9,106	7,695	13,241	9,488	(3,753)	
Claims	7,820	1,756	7,441	7,448	7	
<b>Leases</b>	<b>\$4,151</b>	<b>\$3,943</b>	<b>\$3,838</b>	<b>\$5,196</b>	<b>\$1,358</b>	<b>35%</b>
Property	913	872	913	1,246	333	
Equipment	3,238	3,070	2,926	3,951	1,025	
<b>Miscellaneous</b>	<b>\$1,615</b>	<b>\$2,663</b>	<b>(\$22,257)</b>	<b>(\$20,507)</b>	<b>\$1,750</b>	<b>-8%</b>
Dues and Subscriptions	227	241	307	359	52	
Conferences and Meetings	56	65	213	145	(68)	
Business Travel/Public Hearings	218	213	269	340	71	
Interview & Relocation	645	366	1,039	688	(350)	
Tolls	0	3	0	3	0	
Advertising	1,058	346	1,670	1,841	171	
Other	494	2,362	534	900	366	
Reimbursements	(1,082)	(933)	(790)	(771)	19	
Capital Allocation	0	0	(25,499)	(24,012)	1,487	
<b>Total Non-Personnel Cost</b>	<b>\$237,595</b>	<b>\$240,256</b>	<b>\$204,836</b>	<b>\$241,505</b>	<b>\$36,669</b>	<b>18%</b>
<b>Total Cost</b>	<b>\$965,392</b>	<b>\$1,013,054</b>	<b>\$972,504</b>	<b>\$983,447</b>	<b>\$10,943</b>	<b>1%</b>

## Operating Budget by Mode: MetroAccess

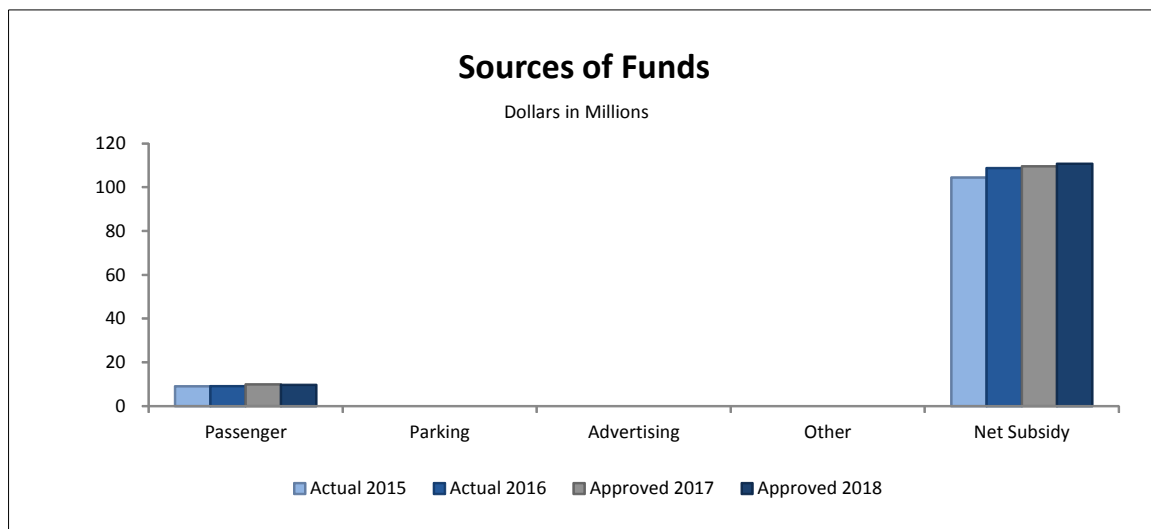
### Sources of Funds

- MetroAccess sources of funds include passenger revenue and net subsidy from Metro's jurisdictional partners. MetroAccess passenger revenues are projected at \$9.7 million and cover 8 percent of Metro's paratransit costs; local subsidies fund the balance of 92 percent.
- MetroAccess passenger revenues decrease \$0.3 million or 2.4 percent in comparison to the FY2017 budget. The reduction in fare revenue is tied to a projected ridership decrease of 20 thousand trips in FY2018 attributed to the projected shift of trips to the new Abilities-Ride program.



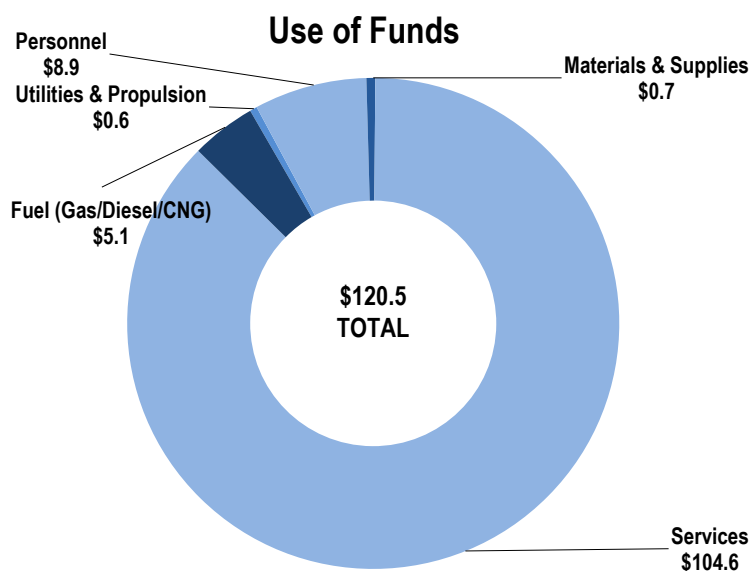
### FY2015 - FY2018

Net local subsidy is to increase by \$1.2 million or 1.1 percent from FY2017 to FY2018. The subsidy growth is due to increased operating costs in FY2018. Subsidy for MetroAccess is 11.3 percent of the total FY2018 Metro net operating subsidy.



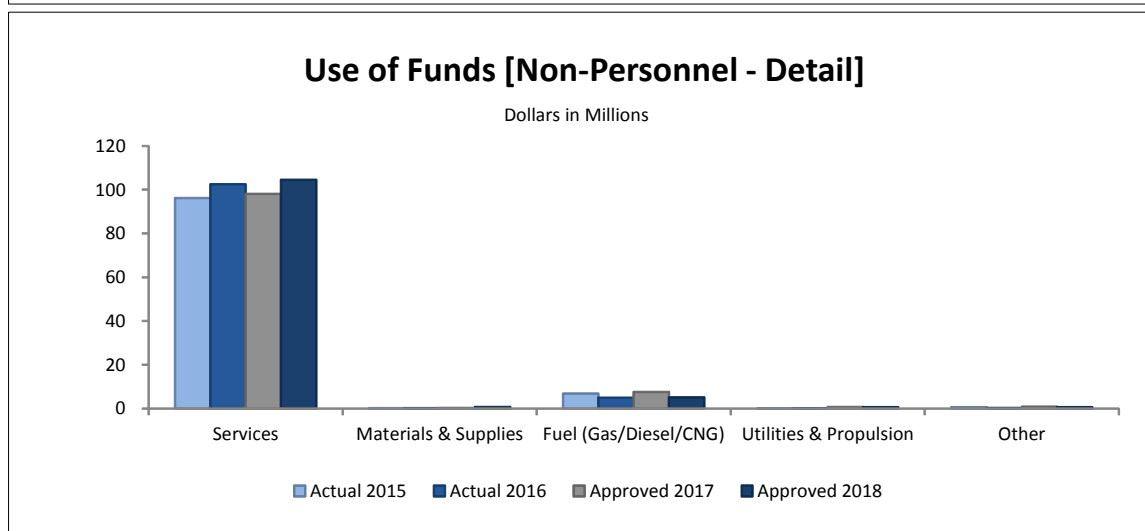
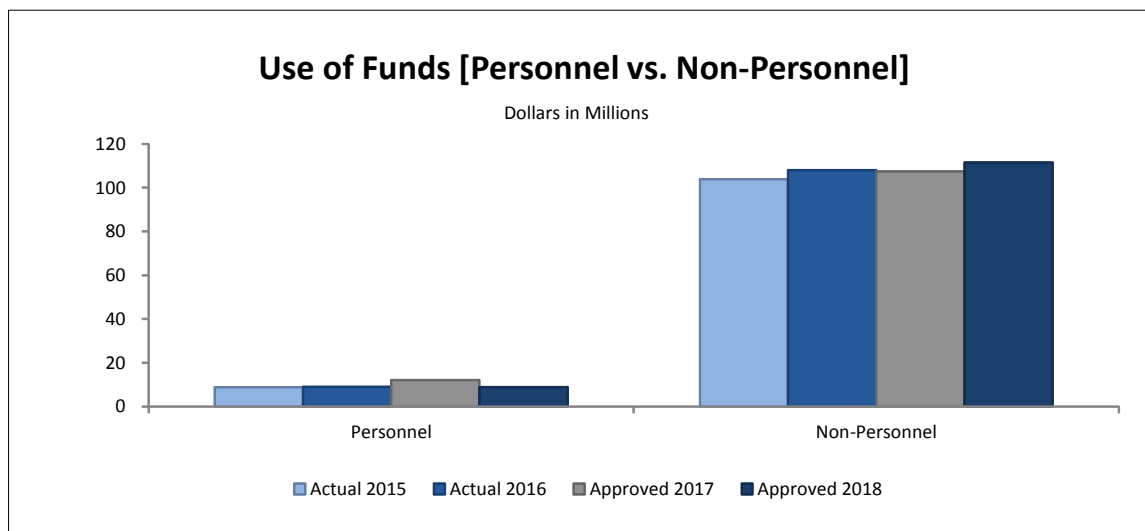
## Uses of Funds

- Personnel cost is budgeted at \$8.9 million, which is a \$3.2 million decrease compared to the FY2017 budget resulting from Authority wide workforce reductions that impacted the MetroAccess mode. These costs are for management and oversight of the contractually provided services.
- Services are budgeted at \$104.6 million and represents an increase of \$6.6 million over the FY2017 budget, primarily attributed to contract cost escalation offset by a decrease in the projected shift of riders to the Abilities-Ride program. Paratransit related services account for 86.7 percent of the total MetroAccess budget.



## FY2015 - FY2018

- Services increased by \$6.3 million or 6.5 percent from FY2015 to FY2016, and are projected to increase by \$6.6 million or 6.7 percent from the FY2017 budget to FY2018. The cost savings associated with Metro's facilitation of alternative service options have been offset by cost escalation and increased ridership.
- Energy costs, consisting primarily of fuel, decreased by \$2.5 million or 32.6 percent from the FY2017 budget to FY2018. The decrease is due to lower fuel costs as a result of lower projected gasoline prices.



**MetroAccess**  
Revenue and Expenses

<i>(Dollars in Thousands)</i>	<b>Actual FY2015</b>	<b>Actual FY2016</b>	<b>Approved FY2017</b>	<b>Approved FY2018</b>	<b>Variance</b>
<b>Revenues</b>					
Passenger	\$9,045	\$9,156	\$9,972	\$9,732	(\$240)
Other Passenger	0	0	0	0	0
Parking	0	0	0	0	0
Advertising	0	0	0	0	0
Joint Development	0	0	0	0	0
Fiber Optics	0	0	0	0	0
Other	0	0	0	0	0
Interest	0	0	0	0	0
Reimbursables	0	0	0	0	0
<b>Total Revenues</b>	<b>\$9,045</b>	<b>\$9,156</b>	<b>\$9,972</b>	<b>\$9,732</b>	<b>(\$240)</b>
<b>Expenses</b>					
Personnel	\$8,802	\$9,088	\$12,078	\$8,882	(\$3,196)
Services	96,166	102,430	98,006	104,559	6,553
Materials & Supplies	185	151	315	701	386
Fuel (Gas/Diesel/CNG)	6,824	4,994	7,588	5,113	(2,474)
Utilities & Propulsion	67	106	763	569	(194)
Casualty & Liability	552	296	667	543	(124)
Leases & Rentals	770	799	842	878	36
Miscellaneous	58	46	120	58	(63)
Capital Allocation	0	0	(817)	(769)	48
<b>Total Expenses</b>	<b>\$113,424</b>	<b>\$117,910</b>	<b>\$119,563</b>	<b>\$120,533</b>	<b>\$970</b>
					0
<b>Net Subsidy</b>	<b>\$104,380</b>	<b>\$108,753</b>	<b>\$109,591</b>	<b>\$110,801</b>	<b>\$1,210</b>
Cost Recovery Ratio	8.0%	7.8%	8.3%	8.1%	-0.3%

## Operating Expense Budget

MetroAccess

<i>(Dollars in Thousands)</i>	Actual 2015	Actual 2016	Approved 2017	Approved 2018	Variance	% Change
<b>Salaries</b>	\$5,662	\$5,796	\$6,820	\$5,529	(\$1,291)	-19%
<b>Wages</b>	\$234	\$175	\$1,207	\$427	(\$779)	-65%
<b>Overtime</b>	\$19	\$17	\$86	\$43	(\$43)	-50%
<b>Total Salaries and Wages</b>	<b>\$5,915</b>	<b>\$5,988</b>	<b>\$8,113</b>	<b>\$6,000</b>	<b>(\$2,113)</b>	<b>-26%</b>
<b>Fringes</b>	<b>\$2,887</b>	<b>\$3,100</b>	<b>\$3,966</b>	<b>\$2,882</b>	<b>(\$1,083)</b>	<b>-27%</b>
Fringe Health	(3)	0	1,625	1,268	(357)	
Fringe Pension	0	0	1,233	969	(264)	
Other Fringe Benefits	2,883	2,673	634	468	(166)	
Workman Compensation	7	428	474	177	(297)	
<b>Total Personnel Cost</b>	<b>\$8,802</b>	<b>\$9,088</b>	<b>\$12,078</b>	<b>\$8,882</b>	<b>(\$3,196)</b>	<b>-26%</b>
<b>Services</b>	<b>\$96,166</b>	<b>\$102,430</b>	<b>\$98,006</b>	<b>\$104,559</b>	<b>\$6,553</b>	<b>7%</b>
Management Fee	0	1	0	0	0	
Professional & Technical	2,245	2,936	3,404	3,898	494	
Temporary Help	19	21	62	43	(19)	
Contract Maintenance	318	355	392	486	94	
Custodial Services	0	0	0	0	0	
Paratransit	92,797	98,421	92,704	98,520	5,816	
Services - Other	786	697	1,444	1,612	167	
<b>Materials &amp; Supplies</b>	<b>\$185</b>	<b>\$151</b>	<b>\$315</b>	<b>\$701</b>	<b>\$386</b>	<b>122%</b>
Fuels and Lubricants	0	0	0	0	0	
Materials & Supplies - Other	185	151	315	701	386	
<b>Fuel (Gas/Diesel/CNG)</b>	<b>\$6,824</b>	<b>\$4,994</b>	<b>\$7,588</b>	<b>\$5,113</b>	<b>(\$2,474)</b>	<b>-33%</b>
Gasoline	6,824	4,994	7,588	5,113	(2,474)	
<b>Utilities &amp; Propulsion</b>	<b>\$67</b>	<b>\$106</b>	<b>\$763</b>	<b>\$569</b>	<b>(\$194)</b>	<b>-25%</b>
Electricity	32	64	587	412	(175)	
Utilities - Other	35	42	176	157	(20)	
<b>Casualty &amp; Liability</b>	<b>\$552</b>	<b>\$296</b>	<b>\$667</b>	<b>\$543</b>	<b>(\$124)</b>	<b>-19%</b>
Insurance	297	241	428	304	(124)	
Claims	255	55	238	239	0	
<b>Leases</b>	<b>\$770</b>	<b>\$799</b>	<b>\$842</b>	<b>\$878</b>	<b>\$36</b>	<b>4%</b>
Property	728	751	752	772	19	
Equipment	42	49	89	106	17	
<b>Miscellaneous</b>	<b>\$58</b>	<b>\$46</b>	<b>(\$697)</b>	<b>(\$712)</b>	<b>(\$15)</b>	<b>2%</b>
Dues and Subscriptions	9	7	11	13	1	
Conferences and Meetings	7	4	11	7	(4)	
Business Travel/Public Hearings	16	11	24	21	(3)	
Interview & Relocation	23	11	33	20	(14)	
Advertising	4	8	53	5	(48)	
Other	0	6	13	18	4	
Reimbursements	0	(1)	(25)	(25)	1	
Capital Allocation	0	0	(817)	(769)	48	
<b>Total Non-Personnel Cost</b>	<b>\$104,622</b>	<b>\$108,822</b>	<b>\$107,485</b>	<b>\$111,651</b>	<b>\$4,167</b>	<b>4%</b>
<b>Total Cost</b>	<b>\$113,424</b>	<b>\$117,910</b>	<b>\$119,563</b>	<b>\$120,533</b>	<b>\$970</b>	<b>1%</b>

## Reimbursable Budget

Reimbursable projects are those unique services, programs, or projects for which separate funding has been provided by a jurisdiction or third-party entity. In previous years, reimbursable operating revenues and expenditures were not included in the operating budget and were reported separately.

### Reimbursable Operating Projects

	FY2016 Approved Budget	FY2017 Approved Budget	FY2018 Approved Budget	Change
<b>State &amp; Local Funding</b>				
DC Circulator	\$23,030	\$22,775	\$21,464	(\$1,311)
<b>Federal Grant Funding</b>				
Safety & Security grants	\$5,706	\$4,701	\$3,647	(\$1,054)
Takoma/Langley Park Transit Center	\$533	—	—	—
Bus Bridges/Transit Works	\$1,383	\$618	—	(\$618)
<b>Other Sources of Funding</b>				
DC Circulator - Passenger fare revenue	\$3,613	\$3,314	\$2,900	(\$414)
Neutral Host agreement with Carrier team	\$6,349	—	\$750	\$750
Joint Development & Adjacent Construction projects	\$6,709	\$2,788	\$2,006	(\$782)
<b>Total</b>	<b>\$47,323</b>	<b>\$34,196</b>	<b>\$30,767</b>	<b>(\$3,429)</b>

### DC Circulator

The DC Circulator is the product of a partnership between the District Department of Transportation (DDOT), DC Surface Transit, Inc. (DCST), and WMATA, and is the fourth-largest bus system in the region.

- Through a partnership between DDOT, DCST and National Park Service (NPS), the Circulator provides visitors, commuters and residents door-to-door transportation to more than 25 museums, monument's and memorials along the National Mall
- System consists of six distinct routes across Washington, DC and into Rosslyn, VA
- Provides approximately five million trips a year, using a fleet of 67 buses servicing each of the 136 stops every 10 minutes
- DC Circulator provides public transportation to the District's main attractions for a fare price of \$1
- Cost of operating and managing contract service is fully reimbursed by the District of Columbia

### Safety and Security Grants

Metro receives several security grants through the Transit Security Grant Program (TSGP) and National Explosive Detection Canine Team Program (NEDCTP) under the Department of Homeland Security (DHS).

- These grants provide funding for capital and operational security activities
- The grants enhance the ability of Metropolitan Transit Police Department (MTPD) to detect and deter potential attacks of terrorism through increased visibility, unpredictable presence, identification of areas of critical infrastructure and employee/public awareness
- Existing grants are scheduled to be utilized through the end of FY2018
- As Federal appropriations become available Metro continues pursuing new funding to further enhance security activities

### Joint Development and Adjacent Construction Projects

The Metro Office of Joint Development and Adjacent Construction (JDAC) reviews and approves construction activities for those jurisdictional projects adjacent to Metrorail and Metrobus property, facilities, and operations in order to ensure that:

- Metro facilities and operations are not damaged or affected by the proposed project
- Metro operations are not affected during and after the project construction

- Metro station capacity is not adversely affected by the ridership generated by the project

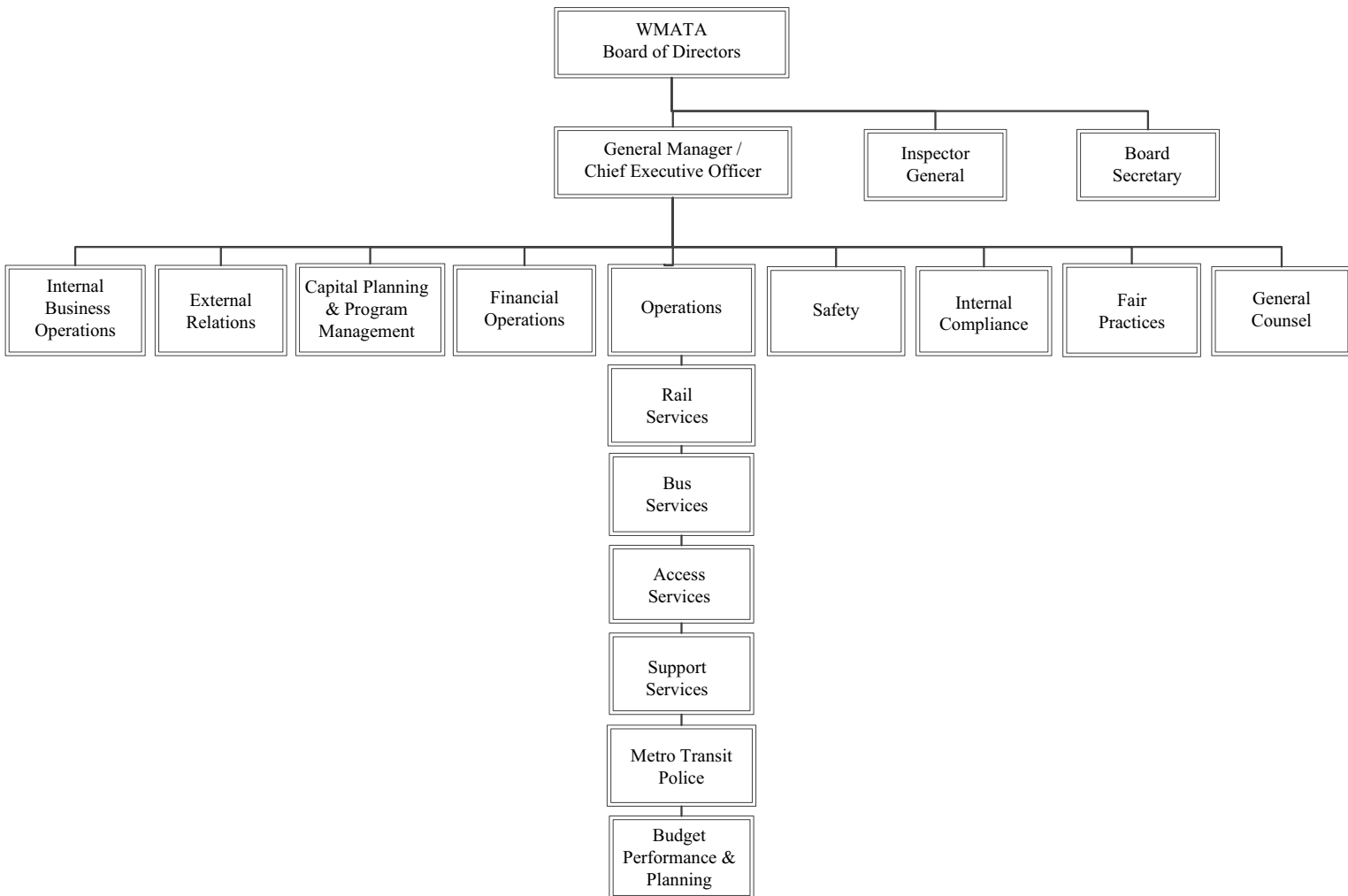
Expenditures are reimbursed by the private or jurisdiction entity. To achieve the objectives, JDAC performs the following:

- Reviews adjacent projects to determine if there are impacts to Metro's interests
- Provides coordination with Owner/Developer/Contractor (ODC) including agencies, jurisdictions, property owners, consultants, developers, utilities and/or anyone who has an impact on Metro property, facilities and/or operations

- Prepares Project Agreements in conjunction with Real Estate and Station Area Planning (LAND) and General Counsel (COUN)
- Provides coordination/oversight for all aspects of a project including design, safety, operations, construct ability, assuring compliance with Metro standards, monitoring/coordinating construction activities and acceptance of on-site installations and facilities
- Provides oversight and acceptance for Joint Development and Jurisdictional Reimbursable projects that will ultimately be owned and operated by Metro

#### Reimbursable Budget

<i>(Dollars in Thousands)</i>	<b>TOTAL</b>	<b>MTPD</b>	<b>BUS</b>	<b>IT</b>	<b>CPPM</b>
<b>Salaries</b>	<b>\$4,166</b>	<b>\$2,508</b>	<b>\$286</b>	<b>\$0</b>	<b>\$1,373</b>
Full-Time Salaries	\$3,915	\$2,257	\$286	—	\$1,373
Full Time Wages	\$251	\$251	—	—	—
<b>Lapse</b>	<b>(\$260)</b>	<b>(\$241)</b>	<b>\$0</b>	<b>\$0</b>	<b>(\$19)</b>
Salary Lapse	(\$260)	(\$241)	—	—	(\$19)
<b>Overtime</b>	<b>\$999</b>	<b>\$248</b>	<b>\$0</b>	<b>\$750</b>	<b>\$0</b>
Overtime Salaries	\$249	\$248	—	—	—
Overtime Wages	\$750	—	—	\$750	—
<b>TOTAL SALARIES AND WAGES</b>	<b>\$4,905</b>	<b>\$2,515</b>	<b>\$286</b>	<b>\$750</b>	<b>\$1,354</b>
<b>Fringes (Total)</b>	<b>\$1,881</b>	<b>\$1,090</b>	<b>\$138</b>	<b>\$0</b>	<b>\$652</b>
<b>TOTAL PERSONNEL COST</b>	<b>\$6,786</b>	<b>\$3,605</b>	<b>\$424</b>	<b>\$750</b>	<b>\$2,006</b>
<b>Services</b>	<b>\$21,657</b>	<b>\$0</b>	<b>\$21,657</b>	<b>\$0</b>	<b>\$0</b>
Contract Maintenance	\$21,367	—	\$21,367	—	—
Other	\$290	—	\$290	—	—
<b>Materials &amp; Supplies</b>	<b>\$177</b>	<b>\$0</b>	<b>\$177</b>	<b>\$0</b>	<b>\$0</b>
Other	\$177	—	\$177	—	—
<b>Fuel (Gas/Diesel/CNG) (Total)</b>	<b>\$2,105</b>	<b>\$0</b>	<b>\$2,105</b>	<b>\$0</b>	<b>\$0</b>
Diesel Fuel	\$1,745	—	\$1,745	—	—
Clean Natural Gas	\$360	—	\$360	—	—
<b>Utilities &amp; Propulsion</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Casualty &amp; Liability</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Leases</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Miscellaneous</b>	<b>\$42</b>	<b>\$42</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Other	\$42	\$42	—	—	—
<b>TOTAL NONPERSONNEL COST</b>	<b>\$23,981</b>	<b>\$42</b>	<b>\$23,939</b>	<b>\$0</b>	<b>\$0</b>
<b>TOTAL COST</b>	<b>\$30,767</b>	<b>\$3,647</b>	<b>\$24,364</b>	<b>\$750</b>	<b>\$2,006</b>



## WMATA Organizational Chart

## General Manager

(Dollars in Thousands)	Actual 2015	Actual 2016	Approved 2017	Approved 2018	\$ Variance	% Change
Personnel	\$983	\$1,254	\$1,649	\$819	(\$830)	-50.3%
Non-Personnel	148	452	172	585	412	239.6%
<b>Total Cost</b>	<b>\$1,131</b>	<b>\$1,706</b>	<b>\$1,822</b>	<b>\$1,404</b>	<b>(\$418)</b>	<b>-22.9%</b>
Authorized Positions	4	4	6	4	-2	-33.3%

1. FY2015 through FY2017 budgets include the department's respective share of all fringe expenses. The FY2018 budget includes only the department's respective share of unallocated fringe expenses due to a change in the recording of fringe expenses.

2. Authorized positions and expense figures reflect the department's approved headcount and budget based on Metro's FY2018 organizational structure.

The General Manager and Chief Executive Officer (GM/CEO) is responsible for the safe and reliable operation of Metrobus, Metrorail, and MetroAccess. The GM/CEO provides strategic leadership on improving passenger safety through maintenance efforts and accountability, increasing service reliability using innovative approaches to operational management, and continuing financial reform with adherence to FTA Financial Management Oversight recommendations, as well as supporting internal audits and reviews to ensure compliance. In addition, the GM/CEO provides direction on capital improvements to infrastructure that are critical to delivering safe and reliable service.

*Under the direction of the GM/CEO, a labor force of over 12,000 are working to restore pride in the Nation's Capital transit system through improved safety, service reliability and financial management*



### FY2018 Business Plan

In FY2018, the GM/CEO will continue implementation of the Back2Good plan, focusing on the safety and reliability issues of Metro riders, including a new preventive maintenance plan to avoid unnecessary delays due to track problems and a Railcar "Get Well" Plan focused on trains operating safely and on time. The Back2Good plan is

projected to result in a 50 percent reduction in service delays and a 25 percent reduction in railcar-related delays.

The GM/CEO's short and long-term actions continue to build the strong foundation necessary to achieve best in class status among U.S. transit systems. This includes not only internal plans, but also partnering with regional leaders on funding.

Actions to improve safety and restore public trust include rail station improvements related to station lighting and cleanliness, continuing work toward 100 percent cell phone coverage in stations and tunnels, and instituting a rail maintenance program that follows the FY2017 SafeTrack program. Internally, actions to restore pride in the organization include initiating standards in uniforms that improve the look and identification of personnel.

Improving reliability and overall customer experience are supported through delivery of the new 7000 series railcars and developing internal goals that measure performance in the areas of railcar, track and power maintenance. Further, Metro will continue to work on long-term initiatives such as the Silver Line Phase 2.

Additional actions under consideration include rail fare gate and bus fare box machine upgrades, relocation of the Metro headquarters, and innovative approaches to improving the fiscal trajectory of the organization.

The GM/CEO is committed to safety and restoring public confidence, which are essential to building stronger ridership.

### New to FY2018

- Implement an aggressive track preventive maintenance program aimed at continuous improvements to safety and infrastructure following the completion of SafeTrack
- Begin operating same series railcars together to improve train line performance
- Work with key stakeholders to build support for long-term funding

**FY2017 Major Accomplishments**

- Completed SafeTrack Surges resulting in significant system repairs in an unprecedented amount of time
- Commenced retirement of 1000 and 4000 series railcars; increased the number of 7000 series railcars put into service each month
- FTA restored WMATA's rights to draw funds on federal grants awarded after July 1, 2015
- Eliminated 700 non-essential or redundant positions increasing Metro's efficiencies and reducing costs
- Initiated installation of new station lighting and performed more frequent power washing, scrubbing, and polishing of station surfaces
- Implemented "MyTripTime" tool to provide data for assessing impacts on customer travel and identify necessary improvements
- Introduced the 15-minute grace period for exit/entry at Rail stations

## Office of Inspector General

<i>(Dollars in Thousands)</i>	Actual 2015	Actual 2016	Approved 2017	Approved 2018	\$ Variance	% Change
Personnel	\$2,975	\$3,402	\$4,336	\$3,461	(\$875)	-20.2%
Non-Personnel	656	1,285	1,354	1,623	269	19.8%
<b>Total Cost</b>	<b>\$3,631</b>	<b>\$4,687</b>	<b>\$5,690</b>	<b>\$5,084</b>	<b>(\$606)</b>	<b>-10.7%</b>
Authorized Positions	34	34	36	35	-1	-2.8%

1. FY2015 through FY2017 budgets include the department's respective share of all fringe expenses. The FY2018 budget includes only the department's respective share of unallocated fringe expenses due to a change in the recording of fringe expenses.

2. Authorized positions and expense figures reflect the department's approved headcount and budget based on Metro's FY2018 organizational structure.

The Office of Inspector General (OIG) is an independent office that reports to the WMATA Board of Directors.

*The OIG supervises and conducts independent and objective audits, investigations, and reviews of WMATA programs and operations to promote economy, efficiency and effectiveness, as well as to prevent and detect fraud, waste and abuse in such programs and operations.*

The Inspector General provides advice to the Board of Directors and the GM/CEO to assist in achieving the highest levels of program and operational performance in WMATA.

### FY2018 Business Plan

OIG's Audit Component will:

- Conduct risk-based performance audits and evaluations to promote economy, efficiency and effectiveness of Metro programs, operations, and activities
- Perform reviews and analyses of contractor proposals to determine reasonableness of cost/pricing information
- Supervise Metro's annual independent audit of financial accounts, conducted by external auditors, to facilitate timely reporting to bondholders

OIG's Investigation Component will:

- Provide all oversight and administration of the OIG hotline
- Oversee and administer Metro's Whistleblower/Retaliation Policy, as well as provide confidential and timely investigative reports to the Whistleblower Panel
- Handle and issue confidential reports of investigations involving fraud, waste, abuse, and gross mismanagement

- Issue Management Alerts to the GM/CEO for issues with time sensitivity
- Lead coordination of investigations with outside agencies and/or the MTPD
- Provide Whistleblower/Retaliation training to Metro departments and offices

### FY2017 Major Accomplishments

OIG's audit component completed at least eight performance audits/evaluations and made value-added recommendations to promote economy, efficiency, and effectiveness of Metro programs and operations.

- OIG also reviewed at least six contractor proposals for reasonableness of cost/pricing information and suggested about \$8 million in net adjustments to the Office of Procurement for use in contract negotiations. In addition, the office issued 50 other attestation reports for billing rate and pre-award reviews
- OIG oversaw Metro's annual independent audit of financial accounts
- OIG's investigations component handled the review, referral or subsequent investigation of over 400 complaints of the OIG hotline
- OIG's investigation component issued at least 20 confidential reports of investigations involving fraud, waste and abuse
- OIG's investigation component handled at least 10 whistleblower cases providing confidential and timely investigative reports to the Whistleblower Panel
- OIG's investigation component continued to coordinate investigations with federal and state agencies and/or the MTPD, when appropriate
- OIG provided internal controls and fraud awareness training to Metro departments and offices

## Board Secretary

<i>(Dollars in Thousands)</i>	Actual 2015	Actual 2016	Approved 2017	Approved 2018	\$ Variance	% Change
Personnel	\$504	\$508	\$587	\$447	(\$140)	-23.9%
Non-Personnel	156	70	219	230	11	4.8%
<b>Total Cost</b>	<b>\$660</b>	<b>\$578</b>	<b>\$806</b>	<b>\$677</b>	<b>(\$130)</b>	<b>-16.1%</b>
Authorized Positions	5	5	4	4	0	0.0%

1. FY2015 through FY2017 budgets include the department's respective share of all fringe expenses. The FY2018 budget includes only the department's respective share of unallocated fringe expenses due to a change in the recording of fringe expenses.
2. Authorized positions and expense figures reflect the department's approved headcount and budget based on Metro's FY2018 organizational structure.

The Office of the Board Corporate Secretary (SECT) is an independent office that reports to the WMATA Board of Directors. SECT serves as a resource to advance the Board's goals and policies, and Metro's strategic plan.

SECT is responsible for managing the decision-making process, the exchange of information and documentation in support of Board activities.

*The Office of the Board Secretary works proactively with the GM/CEO and his staff to carry out the policies, goals and initiatives of the WMATA Board; and serves as liaison between the Board, the Authority, Board advisory bodies and customers.*

Other responsibilities include the coordination, review and distribution of WMATA Board materials; recording and maintaining official records of Board actions and resolutions; publishing legal notices and arranging public hearings approved by the Board, as well as representing the Board on a variety of issues relating to stakeholder groups including the Accessibility Advisory Committee and the Riders' Advisory Council.

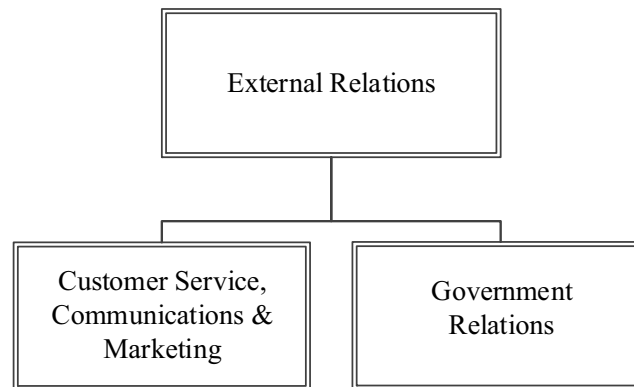
### FY2018 Business Plan

- Continue acting as a vital bridge between the Board, executive leadership and the public
- Conduct Board retreat to address strategic issues
- Support and make recommendations regarding Board initiatives and policies
- Ensure Compact requirements are met, including the implementation of the Public Participation Plan

### FY2017 Major Accomplishments

- Board adopted revised Bylaws and Code of Ethics
- Board appointed new Inspector General
- Conducted Board retreat and established committee work plans for FY2017
- Board Executive Committee met regularly with Riders' Advisory Council and Accessibility Advisory Committee

## External Relations



<i>(Dollars in Thousands)</i>	Actual 2015	Actual 2016	Approved 2017	Approved 2018	\$ Variance	% Change
Personnel	\$14,513	\$14,737	\$15,443	\$9,733	(\$5,710)	-37.0%
Non-Personnel	5,949	5,621	7,564	8,802	1,238	16.4%
<b>Total Cost</b>	<b>\$20462</b>	<b>\$20,359</b>	<b>\$23,007</b>	<b>\$18,535</b>	<b>(\$4,472)</b>	<b>-19.4%</b>
Authorized Positions	144	141	139	115	-24	-17.3%

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2. Authorized positions and expense figures reflect the department's approved headcount and budget based on Metro's FY2018 organizational structure.

The Department of External Relations (EXRL), in support of Metro's business priorities and objectives, is responsible for building and maintaining strong relationships with Metro's many stakeholders and partners, including its customers, regional elected officials, business and community groups, and the Authority's own Board of Directors.

Key priorities include the following:

- Working with funding jurisdictions and Congress to ensure needed operating and capital support
- Maintaining communications with customers, community groups and employees
- Engaging all stakeholders in building support for Metro's business goals and objectives
- Informing the public through media relations
- Responding to federal agencies and oversight organizations on safety and other matters
- Serving as management's Board liaison and overseeing management's work with the Board of Directors

### FY2018 Business Plan

In FY2018 External Relations will continue to integrate the efforts of several functional areas to further develop and enhance its comprehensive program to strengthen Metro's brand.

- Provide strategic and tactical leadership for all aspects of external relations and marketing that support the public relations, community relations, and government relations objectives of the Authority
- Work to build public awareness of Metro's value and its impact on the lives of people in the Washington metropolitan area
- Communicate continued safety, reliability and financial progress
- Work with Congress, the Administration, Federal agencies and national organizations to advocate for Metro
- Keep stakeholders informed of Metro's progress to reform financial management and improve safety, including implementing FTA Safety Management Inspection (SMI) Corrective Action Plans (CAPs), and recommendations of other oversight organizations

### Back2Good and Other Actions

In support of the GM/CEO's action plan to improve reliability and overall customer experience, EXRL will focus on the following:

- Improve safety, security & restore public trust
  - Coordinate with staff of the FTA, NTSB and other agencies to support safety efforts, provide

information and ensure timeliness of Metro compliance matters

- Refresh customer safety communications programs to assist in reducing customer injuries and youth behavior incidents
- Support emergency drills by including regional and Congressional leaders
- Advocate for additional Federal, state and local safety and security funding
- Implement new TSA grant to support terrorism prevention on public transit in connection with the ‘See Something – Say Something’ campaign
- Improve reliability & overall customer experience
  - Continue online/social media customer care
  - Continue the Metro Volunteer Persons (MVP) program
  - Unveil new uniforms to raise visibility of station staff and support high performing employees
  - Continue to ensure compliance with the Board approved Public Participation Plan
  - Expand SmartBenefits campaign
  - Hold new customer outreach events at high traffic stations and bus stops to share safety messages and trip planning information at key tourist entry points throughout the system using digital screens
- Alter fiscal trajectory & renew jurisdictional confidence
  - Provide ongoing updates of Metro progress improvements
  - Coordinate with the Council of Governments to build trust and confidence for funding and Capital Funding Agreement
  - Develop strategies and programs to retain funding for FY2019 budget
  - Work with civic, community and business organizations to build support for long-term funding
  - Develop stronger financial tools to ensure the efficient operation of the payment process for the SmartBenefits program in partnership with the CFO’s office
  - Develop and implement expanded Metro merchandise catalog and retail store to enhance revenue
  - Expand business partnerships to enhance sponsored transit fare revenue

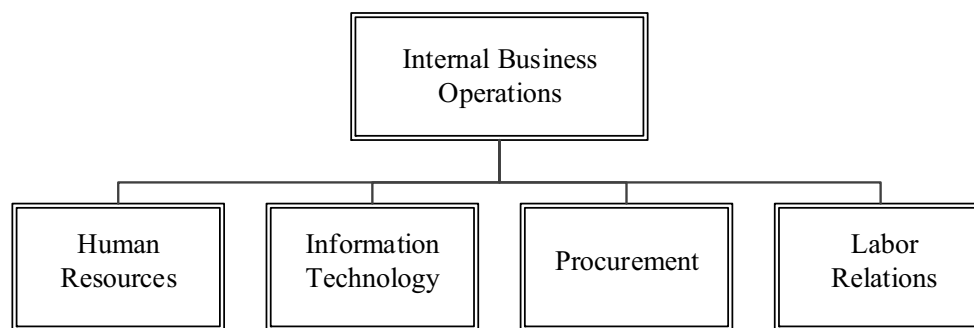
### ***New To FY2018***

- Retain an outside government affairs firm to support federal legislative and regulatory advocacy for reauthorization of the Passenger Rail Improvement and Investment Act (PRIIA) funding needed to continue rebuilding Metro’s system
- Develop an integrated marketing/communications campaign to rebuild ridership
- Market expanded fare pass products such as Select Pass to commuters and the U\*Pass to regional college and university customers
- Relocate the Replication & Digitizing Services’ (RADS) print facility and modernize printshop equipment
- Expand installation of digital screens to provide customer fares, trip planning, and safety information

### **FY2017 Major Accomplishments**

- Ensured funding of \$150 million in PRIIA funding for FY2017
- Led coordination of outreach to elected stakeholders and their staffs in support of SafeTrack program
- Ensured successful legislative sessions in Richmond and Annapolis consistent with WMATA’s 2016 legislative priorities
- Successfully launched Back2Good campaign which informed riders and other key stakeholders of WMATA’s strategic priorities to restore public trust
- Spearheaded GM One-Year Anniversary Press Club Appearance and subsequent activities
- Launched social media channel to enhance customer engagement
- Executed both Span of Service and FY2018 Budget Proposal Public Outreach plans that garnered an unprecedented number of public comments
- Successfully planned Inauguration weekend and support for a record number of riders
- Effectively managed communications and marketing materials for SafeTrack surges
- Designed a new Metro Training catalogue to encourage employee engagement

## Internal Business Operations



<i>(Dollars in Thousands)</i>	Actual 2015	Actual 2016	Approved 2017	Approved 2018	\$ Variance	% Change
Personnel	\$55,899	\$59,276	\$76,935	\$54,664	(\$22,272)	-28.9%
Non-Personnel	32,459	38,064	45,537	58,525	12,989	28.5%
<b>Total Cost</b>	<b>\$88,358</b>	<b>\$97,340</b>	<b>\$122,472</b>	<b>\$113,189</b>	<b>(\$9,283)</b>	<b>-7.6%</b>
Authorized Positions	587	599	571	520	-51	-8.9%

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2. Authorized positions and expense figures reflect the department's approved headcount and budget based on Metro's FY2018 organizational structure.

The Department of Internal Business Operations (IBOP) is comprised of four internal business operations that play integral roles in supporting all operating components of Metro. The four internal business units are Human Resources, Information Technology, Labor Relations and Procurement. These offices provide leadership, direction

and support to offices throughout the Authority, delivering high quality services and promoting principles and practices of fairness and merit. IBOP implements and supports information management solutions, provides acquisition services and manages unionized employment matters.

Performance Indicator	Actual FY2015	Actual FY2016	Target FY2017	Target FY2018
<b>Improve reliability and win back riders</b>				
Overall vacancy rate	7%	5%	5%	5%
Operations critical vacancy rate	-	8%	9%	9%

### FY2018 Business Plan

- Design and implement proactive sourcing and recruitment strategies in support of Metro's workforce requirements
- Develop, implement, and deliver information technology and telecommunication services in support of Metro's strategic goals and objectives
- Promote fair and open competition, procure quality goods and services, and meet the needs of Metro's customers while maintaining public trust and integrity
- Represent the Authority and conduct all labor relations between Metro and the labor unions representing the employees of Metro

- Generate efficiencies by completing projects in the pipeline and focusing on initiatives with high return on investment

#### *New to FY2018*

- Implement phase two of the healthcare transition plan to help achieve Metro's financial objectives while maintaining competitive healthcare benefits packages
- Work with Financial Operations to consolidate administrative aspects of the various Pension and Health & Welfare Trusts to achieve operational savings

- Implement technology improvements in Medical Services to enhance operational efficiencies and service delivery to employees
- Create efficiencies in procurement activities by developing contracting vehicles that include: enterprise-wide contracts, intergovernmental cooperative contracts, and long-term contracts

### **Back2Good and Other Actions**

In support of the GM's action plan to improve reliability and overall customer experience, IBOP will:

- Complete the deployment of Wi-Fi service for customers in all underground rail stations
- Continue efforts to increase Metro's communication systems' backup battery power capacity to maintain the communication system during a major power outage

In support of the GM's action plan to alter fiscal trajectory and renew jurisdictional confidence, IBOP will:

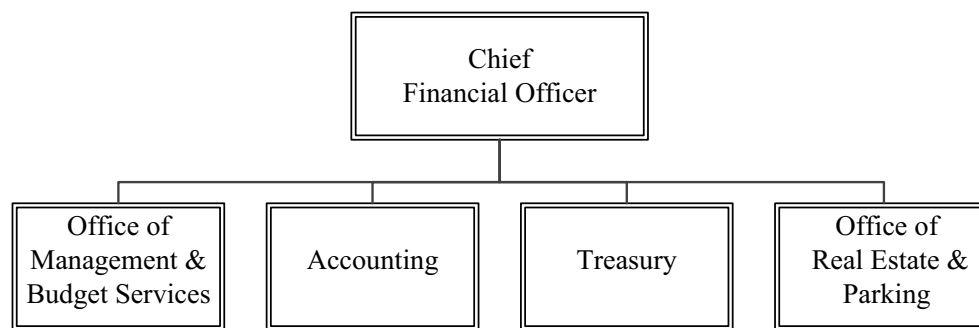
- Continue to develop a framework for collective bargaining agreements that respects our workforce, is more responsive to customers, and delivers enhanced cost efficiencies

- Improve employee accountability by requiring annual performance evaluations for every Metro employee
- Further efforts to implement and maintain tighter controls on professional service contracts to improve hourly rates

### **FY2017 Major Accomplishments**

- Created the Radio Outage Display System (RODS) to provide information concerning radio outages or poor reception areas within the Metrorail system
- Integrated a Bus System data mart correlating bus ridership and fare box data to assist with detection and prevention of fare evasion
- Developed, deployed and enhanced Bus Mobile Apps – Bus Stop Editor & Ridechecker
- Completed infrastructure for wireless networking capability in all Metrorail stations for Metro internal use
- Completed a pilot deployment of Wi-Fi service for customers in six underground rail stations

## Financial Operations



<i>(Dollars in Thousands)</i>	Actual 2015	Actual 2016	Approved 2017	Approved 2018	\$ Variance	% Change
Personnel	\$50,495	\$52,567	\$56,182	\$23,345	(\$32,837)	-58.4%
Non-Personnel	47,793	37,597	62,655	62,569	(87)	-0.1%
<b>Total Cost</b>	<b>\$98,288</b>	<b>\$90,164</b>	<b>\$118,837</b>	<b>\$85,914</b>	<b>(\$32,923)</b>	<b>-27.7%</b>
Authorized Positions	286	295	271	252	-19	-7.0%

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The Department of Financial Operations facilitates planning, allocation and management of the Authority's financial resources, programs and priorities to continuously monitor its financial condition and ensure fiscal integrity.

*Financial Operations provides accurate and timely financial services to stakeholders while fostering accountability. The department is instrumental in achieving the GM/CEO's priority of fiscal responsibility.*

### FY2018 Business Plan

- Supporting the GM/CEO's strategic directives on accountability and financial reforms, while aligning resources with Metro's safety and reliability initiatives
- Assisting departments in their objectives by allocating and monitoring Metro's financial resources, processing financial transactions, and preparing business analyses
- Producing the annual Operating Budget, six year Capital Improvement Program (CIP), and long range financial plan
- Ensuring compliance with federal grant regulations
- Administering Metro's revenue collections and fare media sales and distribution
- Delivering timely audits, producing accurate financial reports and issuing on-time payments

- Administering Metro's liquidity and investment portfolio, while maintaining banking relationships and rating score
- Managing and maximizing Metro's non-transit revenue-producing assets, most notably Metro's real estate and parking portfolios
- Administering Metro's joint development program and managing its properties to include disposing of excess properties
- Providing reliable parking services that increase transit customer satisfaction while maximizing parking space utilization
- Implementing innovative programs that promote additional sources of revenue and transit use
- Ensuring fare collection systems are in a state of good repair

### New to FY2018

- Complete the roll out of MetroTime, a time capture automation initiative that eliminates the use of paper timesheets and enhances Metro's existing timekeeping functionality
- Implement a new Prompt Pay Policy that streamlines payments to vendors
- Implement a new enterprise resource planning tool to improve the budget process and financial reporting

- Sell new bonds which, together with jurisdictional opt-out contributions, have the potential of providing approximately \$575 million in proceeds for capital purposes
- Focus on accelerating the joint development transaction process
- Install new touchscreen farebox driver control units (DCU) for Metrobus to replace soon to be obsolete legacy units and improve the gathering of revenue collection data
- Support the Fair Share program, which is designed to reduce fare evasion and decrease customer and employee conflicts over fare collection. The program includes issuance of appropriate fare media to special rider groups, improved signage on station swing gates, measures to secure station swing gates, employee and customer education, and MTPD enforcement
- Identified new revenue stream and new customer segment through the launching of the U-Pass Pilot Program
- Implemented a series of initiatives in the Workers' Compensation program that are intended to improve efficiency and result in cost savings over the long term
- Transitioned all insurance programs from six brokers to a single lead broker with an approximate annual (recurring) savings of \$1.6 million
- Lowered debt service by \$25 million by repaying 2009 Series A and B transit bonds earlier than anticipated
- Increased borrowing limits on lines of credit by \$100 million to a maximum availability of \$350 million
- Identified and commenced selling approximately \$30 million in excess real estate property where the property served no future transit purpose for Metro
- Completed joint development transactions for New Carrollton Phase I, Takoma, Navy Yard, College Park, Capital Heights and Grosvenor-Strathmore, generating additional ridership and revenues
- Completed the Garage Lighting Project, which replaced low-emitting diode lighting in all of Metro's parking garages. This improvement is expected to achieve over a 70 percent reduction of Metro's garage lighting expenses
- Awarded the Government Finance Officers Association's Distinguished Budget Presentation Award and Certificate of Achievement for Excellence in Financial Reporting Program (CAFR Program)

### Back2Good and Other Actions

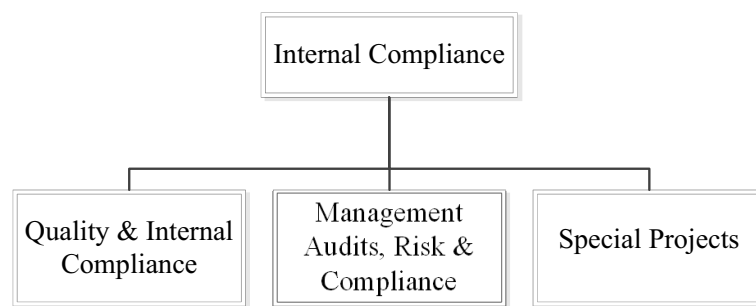
Financial Operations is focused on fiscal responsibility to renew jurisdictional confidence through:

- Enhanced functionality of financial management systems to ensure standardization and accuracy of data and to improve reporting and accounting controls
- Development and implementation of a comprehensive office consolidation strategy
- Evaluation of simplified fare options

### FY2017 Major Accomplishments

- Completed FY2016 Financial Audit on time including an unmodified opinion and no new findings in the financial statement and single audits

## Internal Compliance



<i>(Dollars in Thousands)</i>	Actual 2015	Actual 2016	Approved 2017	Approved 2018	\$ Variance	% Change
Personnel	\$8,629	\$8,978	\$9,703	\$5,234	(\$4,469)	-46.1%
Non-Personnel	88	513	248	5,166	4,918	1980.2%
<b>Total Cost</b>	<b>\$8,717</b>	<b>\$9,491</b>	<b>\$9,951</b>	<b>\$10,400</b>	<b>\$449</b>	<b>4.5%</b>
Authorized Positions	107	90	118	60	-58	-49.2%

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In an organizational realignment directed by the General Manager in FY2017, the office of Internal Compliance (INCP) was established to centralize Metro's audit and compliance functions. The centralized functions are intended to promote compliance with internal policies and procedures, and external laws, regulations and directives, while adding greater accountability and transparency to Metro's compliance and internal control activities.

Under INCP, the offices of Management Audits, Risk and Compliance (MARC) and Quality Assurance, Internal Compliance & Oversight (QICO) are the primary liaison between external auditors and regulators, setting the standard process for audit notification, coordination of management responses, and the central management of all audit issues and corrective action plans (CAPs) across the organization.

Each INCP function is responsible for audit management and oversight according to defined auditable areas:

- MARC performs oversight of Metro's internal business support services and financial management business functions.
- QICO performs oversight of Metro's engineering, maintenance and operations, and safety and security business functions.

### *Areas of Focus*

MARC conducts reviews to ensure compliance with applicable federal regulations necessary to preserve federal

grant eligibility and monitors FTA's Financial Management Oversight (FMO) and other financial management findings to ensure complete implementation of corrective action plans. MARC supports management in ensuring that financial management-related risks across Metro are mitigated to an acceptable level. MARC also provides internal controls guidance and training, and partners with departments to review and evaluate financial and administrative business process efficiency and effectiveness.

QICO provides quality assurance and compliance services, independently reviewing and auditing operations, maintenance, engineering, safety and security functions across the agency to ensure compliance with applicable requirements and to champion quality improvements. QICO coordinates and oversees the corrective/preventive actions developed and implemented for these areas to address regulatory (e.g. FTA, NTSB, TOC, GAO, etc.) and OIG recommendations and required actions. QICO also manages control and administration of Metro's principal guidelines for all business processes, ensuring that policies are clearly written and documented, updated and communicated to support day-to-day decision making that aligns with Metro's core objectives.

Collectively, MARC and QICO independently monitor the status of all findings from internal and external auditors, and other oversight bodies, providing oversight for the implementation of corrective actions developed in response to these findings and recommendations. This

independent verification ensures that findings are adequately addressed and the Authority continues to comply with all regulatory requirements.

Performance Indicator	Actual FY2015	Actual FY2016	Target FY2017	Target FY2018
<b>Improve Safety &amp; Security and Restore Public Trust</b>				
RWP Compliance/ Safety Stand Down Participation	N/A	100%	100%	100%
% of Employee Injury Investigation Completed to Standard	N/A	100%	100%	100%
<b>Improve reliability and win back riders</b>				
Implement QICO Audit Schedule - Auditable Areas (operations, maintenance, engineering, and safety and security)	N/A	N/A	18	TBD
New 7000 Series Railcar - Reduce Conditional Acceptance Open Items from CY 2016	N/A	25.7	15.0	10.0
Regulatory Compliance: Ratio of CAPs Issues vs. Submitted for Closure	N/A	N/A	<1	<1
Identification and Monitoring of CAP items (FTA Directives & NTSB Recommendations)	N/A	282	282	TBD
<b>Alter fiscal trajectory and renew jurisdictional confidence</b>				
Implement MARC Audit Schedule-Auditable Areas (business support services and financial management functions)	25	25	13	TBD
Identification and Monitoring of CAPs (including FMO CAPs)	65	186	186	TBD

## FY2018 Business Plan

- Focus on conducting risk-based assessments of internal business support services, financial management, engineering, maintenance and operations, and safety and security to ensure established objectives are met, in compliance with processes, policies, and regulations
- Launch planned audits targeted at key operations, safety, quality of service, and financial risk to support the Back2Good plan's top priorities: 1) restore public trust, 2) improve safety, security and service reliability and 3) better align Metro's finances through sound accounting and management principals, and to be more effective in the delivery of internal compliance and oversight in these areas
- Work collaboratively with Metro's OIG on internal audit findings, and with all departments and offices to strengthen internal controls, implement quality improvements, and improve data integrity
- Transform data derived from assurance compliance and oversight activities into performance and actionable intelligence that can be used by managers to improve decision making and resource allocation so that Metro can identify problems, provide proof of change and build credibility through accountability

- Implement an internal control training program for Metro management, staff and the Audit Committee of Metro's Board of Directors

### *New to FY2018*

- Deploy a Centralized Audit Management and Oversight framework that establishes the department as the primary liaison between all external auditors and regulators (e.g. FTA, NTSB, GAO) and ensure Metro complies with all safety, operations and financial CAPs
- Provide the following policy and strategy core services: 1) lead Metro's Policy Instruction Management Process 2) establish and implement Corporate Quality and Risk Management Systems and 3) provide Quality and Risk Management, Internal Control and Compliance training
- Continue the following core assurance services: 1) risk-based auditing and inspection and 2) continuous monitoring on Metro Mission Critical Programs (e.g. track maintenance, 7000 series railcars, reliability improvement campaigns, and employee absenteeism)

## Back2Good and Other Actions

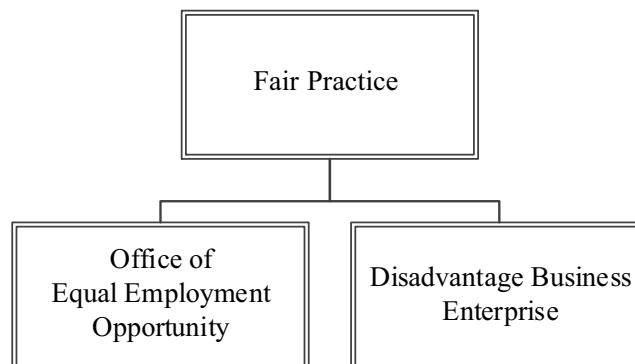
INCP will contribute directly to the following:

- Strengthen and improve the quality assurance function by implementing an enterprise-wide Quality Management System (QMS), introducing this new approach to Metro's departments and providing training to assist Metro's departments in the development or enhancement of processes and procedures, tools, and staff development and augmentation that support a robust Quality Management System
- Maintain the online FTA and NTSB corrective action trackers established to track hundreds of actions being taken to meet all safety recommendations
- Close out FTA corrective actions as identified in the Financial Management Oversight (FMO) Report from June 2014
- Perform 29 Risk-Based Comprehensive Audits, 18 focused on operations, maintenance, engineering and safety practices and 11 on financial management and business processes

## FY2017 Major Accomplishments

- Established progress reporting for the 7000 Series Program that provided additional insight to management
- Introduced an assurance framework for SafeTrack that has led to greater maintenance group accountability and improved quality of work
- Supported the development and roll-out of a quality management training class for maintenance supervisors familiarizing them with quality requirements
- Supported Metro and finance management through the ECHO restriction lift by FTA in December 2016
- Developed risk based CY2017 Audit Plans with a focus on the GM's priorities
- Developed and implemented a centralized audit management policy and a management audit charter to replace current audit closeout policy

## Fair Practices



<i>(Dollars in Thousands)</i>	Actual 2015	Actual 2016	Approved 2017	Approved 2018	\$ Variance	% Change
Personnel	\$1,190	\$1,365	\$1,731	\$2,369	\$638	36.8%
Non-Personnel	190	197	248	293	45	18.0%
<b>Total Cost</b>	<b>\$1,380</b>	<b>\$1,562</b>	<b>\$1,979</b>	<b>\$2,662</b>	<b>\$682</b>	<b>34.5%</b>
Authorized Positions	12	11	12	22	10	83.3%

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The Department of Fair Practices (FAIR) administers Metro's comprehensive Equal Employment Opportunity, Disadvantage Business Enterprise (DBE), and Americans with Disabilities Act (ADA) programs. FAIR also administers affirmative action planning and implementation as well as education and training for cultural/ethnic diversity programs. The organization provides direct support to internal organizations and the

small business community, ensuring fair practices and adherence to WMATA's policies and procedures.

*The Department of Fair Practices ensures non-discrimination and equal opportunity practices in all programs, operations, and activities conducted by Metro and ensures equitable access to employment services, contracting matters, and other opportunities.*

Performance Indicator	Actual FY2015	Actual FY2016	Target FY2017	Target FY2018
<b>Alter fiscal trajectory and renew jurisdictional confidence</b>				
DBE Commitment Rate	19%	11%	22%	22%

### FY2018 Business Plan

- Develop and implement the WMATA policies and procedures required to ensure that all Metro program offices consider the use of disadvantaged and small business in all contracts for goods and services, regardless of the source of the funds utilized for the procurement
- Develop and implement a plan to automate and improve the certification, award, and graduation rates for disadvantaged and small businesses
- Develop and implement, based on indicative data, tailored and responsive diversity awareness training that increases cultural awareness, employee engagement and supports a successful working environment free from Civil Rights violations
- Develop and implement initiatives to decrease the number of underutilized job groups by establishing targets to meet Metro's affirmative action goals within the existing established staffing levels

- Develop and implement an assessment tool to ensure non-discrimination in the execution of WMATA contracts and promote positive external customer relations
- Enhance the capabilities and roles of Metro Inclusion Catalysts by working with staff to develop skills as role models and champions of inclusion
- Retain instructional designers to develop computer-based Affirmative Action and ADA Training as another method of teaching and reinforcing managerial responsibilities
- Revise DBE manuals and brochures, update the DBE program website, and rebrand the DBE program

### **Back2Good and Other Actions**

The Department of Fair Practices will continue to advance priorities that improve reliability and overall customer experience, alter Metro's fiscal trajectory, and renew jurisdictional confidence by:

- Providing Language Translation Services to translate real-time dynamic information, e.g., Notices of Public Hearings, Board Meetings, SafeTrack surges, etc., posted to Metro's external website in seven languages, to provide access of Metro information to clients with limited English proficiency
- Improving overall business performance and customer satisfaction through teaching and coaching employees regarding inclusive skills and behaviors that improve customer relations
- Implementing a re-branding strategy that improves Metro's perception within the minority and women-owned business community
- Developing and implementing a plan to revitalize the interest of small businesses, in general, and DBE certified firms in Metro's DBE, Small Business Enterprise (SBE), and Small Business and Local Preference Program (SBLPP) programs
- Innovating new approaches to ensure timely and accurate reporting and communications with the FTA, the WMATA Board and customers

### **FY2017 Major Accomplishments**

- Hired a new Chief for the Department of Fair Practices to provide leadership for Metro's Equal Employment Opportunity Program (OEEO) and the Disadvantaged Business Enterprise and Small Business Set-aside Program (DBE)
- Partnered with the Department of Internal Business Operations to create a Procurement Review Board to ensure that appropriate DBE and small business goals are established for applicable contracts and procurements
- Designed and delivered a Diversity/Inclusion Program that received overwhelmingly positive reception and feedback
- Improved affirmative action utilization to 70 percent from 62 percent in FY2016
- Partnered with Bus services, leading to a decrease in Title VI complaints by approximately 20 percent
- Co-developed and delivered Gender Transition Training to Metro Transit Police leadership

## General Counsel

<i>(Dollars in Thousands)</i>	Actual 2015	Actual 2016	Approved 2017	Approved 2018	\$ Variance	% Change
Personnel	\$4,867	\$5,666	\$7,331	\$6,022	(\$1,309)	-17.9%
Non-Personnel	2,373	1,057	2,906	2,794	(112)	-3.9%
<b>Total Cost</b>	<b>\$7,240</b>	<b>\$6,722</b>	<b>\$10,237</b>	<b>\$8,816</b>	<b>(\$1,421)</b>	<b>-13.9%</b>
Authorized Positions	47	48	48	48	0	0.0%

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2. Authorized positions and expense figures reflect the department's approved headcount and budget based on Metro's FY2018 organizational structure.

The Office of the General Counsel (COUN) partners with management and staff across the Authority to provide legal and strategic advice. COUN also represents the Authority in trials and appeals.

*The Office of General Counsel is responsible for planning, directing, and providing legal services for Metro, and supervising outside counsel when specialized legal expertise is required.*

### FY2018 Business Plan

COUN's FY2018 Business Plan focuses on actions to improve safety and assist with improving Metro's compliance culture through leadership and training.

- Provide legal counsel and advice for business transactions, strategy, and policy initiatives in partnership with program offices during the development of Metro projects and initiatives
- Defend Metro decisions in judicial and administrative proceedings and enforce Metro's rights in contracts and other transactions

### New to FY2018

- Launch a new section on Metro's website to provide answers to FAQ's and access to frequently requested, but publically available, documents
- Establish a cross-functional work group to discuss risk management data to determine if patterns of accidents exist and determine if system changes (i.e., recommending changes to bus routes to avoid certain intersections) can be made to mitigate risk

### Back2Good and Other Actions

To improve safety, security & restore public trust COUN is:

- Continuing support of the 700MHz and Wireless Neutral Host Projects

- Developing new standard operating procedures and training for MTPD officers to improve interactions with juveniles and minimize use of force incidents involving juveniles with the goal to build better relationships between MTPD and juvenile patrons

To improve reliability & overall customer experience COUN is:

- Supporting the Metro Volunteer Program (MVP) which allows members of the public to volunteer to provide customer guidance (i.e., use of fare machines, fare gates, etc.) by drafting the program policy and manual
- Working closely with PRMT to implement a parts bridging program to accelerate the purchase of necessary rolling stock parts and ensure the availability of working trains
- Working with PRMT to enforce contract terms and conditions, as well as working with GOVR and OMBS to ensure approval of the retirement of the 4000 series railcars; both efforts support the 7000 series railcar program

To alter Fiscal Trajectory & Renew jurisdictional confidence COUN is:

- Supporting the timely delivery of the audit report by providing timely and detailed responses to Metro's outside auditors
- Supporting the close out of FMO items by assisting Financial Operations in the development of timekeeping policies
- Participating in the development of a Workers' Compensation training program for front line supervisors where they will be trained in proper accident investigation techniques and cost control measures
- Developing strategies to reduce over-payments of Workers' Compensation and provide guidance and training to supervisors and timekeepers so overpayments do not occur

- Actively supporting the new Abilities-Ride program by working with ACCS to ensure compliance with ADA and FTA requirements

**FY2017 Major Accomplishments**

- Successfully resolved more than 600 litigation matters and more than 300 general law matters
- Supported CARE initiatives through policy revisions and ongoing improvements in employment, at-will, absenteeism, timekeeping, and workers' compensation policies
- Provided training in ethics, nepotism, whistleblower, EEO, ADA, and Family and Medical Leave Act (FMLA)
- Renewed the Authority's line of credit and revised program guidelines and authorities

## Safety and Environmental Management

<i>(Dollars in Thousands)</i>	Actual 2015	Actual 2016	Approved 2017	Approved 2018	\$ Variance	% Change
Personnel	\$7,050	\$8,143	\$9,453	\$8,067	(\$1,386)	-14.7%
Non-Personnel	4,908	6,541	6,585	9,266	2,682	40.7%
<b>Total Cost</b>	<b>\$11,957</b>	<b>\$14,684</b>	<b>\$16,038</b>	<b>\$17,333</b>	<b>\$1,296</b>	<b>8.1%</b>
Authorized Positions	66	67	66	76	10	15.2%

1. FY2015 through FY2017 budgets include the department's respective share of all fringe expenses. The FY2018 budget includes only the department's respective share of unallocated fringe expenses due to a change in the recording of fringe expenses.
2. Authorized positions and expense figures reflect the department's approved headcount and budget based on Metro's FY2018 organizational structure.

The Department of Safety & Environmental Management (SAFE) ensures that Metro's Bus, Rail, and Access systems and other facilities are operationally safe and environmentally sound for all employees, customers, and surrounding communities. The overall goal is always zero accidents, injuries and fatalities.

*SAFE, in collaboration with all other departments, promotes Metro's safety culture involving all levels, from the Board of Directors to every employee regardless of position or location.*

SAFE is responsible for the management and/or compliance of policies and procedures in the areas of system safety, occupational safety and health, accident and incident investigation, hazard identification and mitigation, internal safety audit process, oversight of construction safety, safety and security certification, environmental management, safety data and analysis, industrial hygiene, safety training, and corporate safety programs.

Performance Indicator	Actual FY2015	Actual FY2016	Target FY2017	Target FY2018
<b>Improve Safety &amp; Security and Restore Public Trust</b>				
WMATA Employee Injury Rate (per 200,000 work hours)	6.41	5.40	4.60	4.60
Customer Injury Rate (per million passengers)	2.43	2.08	1.80	1.80
Percentage of Employee Injury Investigations Completed in SMS Within 30 days	37%	67%	67%	67%
Percentage of Safety Data Sheet reviews completed in a timely manner (within 15 working days)	95%	95%	90%	90%
<b>Improve reliability and win back riders</b>				
Bus	78%	77%	79%	79%
Rail	87%	93%	91%	91%
Access	92%	81%	92%	92%
Percentage of pretreatment systems maintained each year	98%	99%	90%	90%
Percentage of discharge monitoring requirements completed	100%	100%	100%	100%
Percentage of completed hotline calls	87%	58%	90%	90%
Percentage of attended training	75%	80%	80%	80%
Rail Operator Efficiency: 5 Second Rule	95%	97%	100%	100%

### FY2018 Business Plan

- Continuous improvement in Metro's corporate safety culture for employees and customers
- Documenting and closing open Corrective Action Plans (CAPs)/Accident Reports
- Ongoing implementation of Federal Transit Administration (FTA) Safety Management System (MAP21) to improve and strengthen Metro's safety culture

- Supporting rehabilitation/state of good repair of system
- Taking proactive actions to improve the employee and customer injury rates

### FY2017 Major Accomplishments

- Developed and integrated the first Fatigue Risk Management Systems (FRMS) Safety Program at a transit agency in the United States
- Established a full time RAIL Accident / Incident investigation team

- Coordinated the Safety Awards Program; a total of 1,938 employees are eligible for Safety Awards for 100, 200, 300, 365 consecutive days without injuries
- Oversaw the cleanup and proper disposal of more than 4,200 tons of waste and almost 2,000 tires illegally dumped on one of Metro's properties, including restoration of a stream channel unlawfully disturbed on the property, as directed by the Maryland Department of the Environment
- Submitted documentation for 79.4 percent (581 of 732) Safety Management Inspection (SMI) Actionable Items for the FTA Safety Directive 15-1
- Provided Safety Management System (SMS) workshops for over 200 participants over the course of the year
- Completed Cycle 3 Internal Safety and Security Reviews of the Customer Service, Communications and Marketing, Storeroom and Materials, Revenue and Training departments
- 23 employees earned Transit Safety & Security Program certificate
- Fire Life Safety assured the configuration management and effectiveness of all smoke and fire detection, communication and suppression systems maintaining conformance with applicable fire codes, regulations and industry standards
- Completed 132 Bus Preventive Maintenance Audits to improve bus safety and reliability year to date
- Completed Safety Certification on 250 New Flyer buses and one Electric Bus
- Created real-time reporting via business intelligence of departmental injuries and performance metrics
- Maintained Metro's wastewater and storm water pretreatment systems to comply with discharge permits, including successfully adjusting pretreatment at one system to reduce iron discharge by more than 50 percent
- Fire Life Safety led multi-disciplinary and multi-departmental investigations, inspections, reviews, and audits of Metro's assets
- Closed 4 out of 5 BUS Safety Management Inspection (SMI) CAP's

## Capital Planning and Program Management

<i>(Dollars in Thousands)</i>	Actual 2015	Actual 2016	Approved 2017	Approved 2018	\$ Variance	% Change
Personnel	\$18,552	\$23,969	\$23,935	\$13,995	(\$9,940)	-41.5%
Non-Personnel	84,136	898	1,850	1,896	47	2.5%
<b>Total Cost</b>	<b>\$102,688</b>	<b>\$24,867</b>	<b>\$25,785</b>	<b>\$15,892</b>	<b>(\$9,893)</b>	<b>-38.4%</b>
Authorized Positions	407	473	499	420	-79	-16.7%

1. FY2015 through FY2017 budgets include the department's respective share of all fringe expenses. The FY2018 budget includes only the department's respective share of unallocated fringe expenses due to a change in the recording of fringe expenses.

2. AAuthorized positions and expense figures reflect the department's approved headcount and budget based on Metro's FY2018 organizational structure.

The Department of Capital Planning and Program Management (CPPM) works to provide a safe and reliable system through comprehensive engineering, inspection, maintenance, rehabilitation, and construction programs that enhance the condition of the Metrorail system, railcars, and Metrobus.

### FY2018 Business Plan

CPPM's business plan is designed to help Metro progress towards the Authority's strategic goals, with specific actions to implement the GM/CEO's priorities and positively influence the following measures:

- Rail On-Time performance and reliability
- Capital improvements to safety and infrastructure
- Customer satisfaction performance
- ADA Compliance
- Operating Budget Compliance

### New to FY2018

- Implement GEN III ATP Track Circuit System which will signal train operators of the presence of staff on the tracks
- Replace existing radio systems with new generation 700MHz radio systems for Metro's personnel use (emergency response, track workers, train and bus operators, MTPD)
- Begin planning effort for the rehabilitation of 14 surface parking lots
- Upgrade the electronic safety and security at various Metro stations
- Perform fire systems upgrades at Carmen Turner Facility, Branch Ave. Yard, Greenbelt Yard, Shady Grove Yard and Glenmont Yard
- Design and rehabilitate Tie Breaker Station (TBS) and Traction Power Sub- Station (TPSS) locations system-wide by purchasing and upgrading damaged/obsolete electrical equipment

- Initiate Cross Bond Cable and D-Loop Upgrade Program on Orange and Blue Lines
- Enable 100 percent 8-Car Cable Installation by upgrading cable on Orange and Blue Lines
- Commence platform level lighting construction at 48 underground stations
- Begin planning effort for the rehabilitation of bus maintenance facilities at Four Mile Run and Montgomery Divisions

### Back2Good and Other Actions

Improve safety, security and restore public trust

- Deliver station capital investment strategies to reduce passenger crowding on platforms and mezzanines and bring them into accordance with Metro's safety thresholds as interpreted from Metro's Station Design Guidelines
- Continue upgrade and modernization of the fire alarm and monitoring systems across Metro facilities to protect riders, employees, and capital assets from fire hazards
- Install new Metro and public safety radio systems, including cabling for wireless service in tunnels
- Continue rehabilitation of station cooling systems at Metro stations to provide for a reliable and modern ventilated environment for the traveling public
- Continue rehabilitation of parking structures, including structural repairs, repair/replacement of defective electrical/mechanical components to ensure safety of both passengers and vehicles
- Continue to upgrade the system's electrical infrastructure while replacing traction power components simultaneously as a part of State of Good Repair
- Complete the purchase of high current bonds to be installed in the system to assist with the 100% 8-Car Train Program

- Reduce failures of existing station AC power equipment by rehabilitating existing AC switchgear rooms at stations where critical safety and reliability issues currently exist to thereby minimize impacts observed and experienced by transit passengers
- Continue existing initiatives under cable replacement program including completing replacement of orange boot connections (mainline) and lifting cables off the ground in tunnel areas
- Reduce failures of existing traction power equipment by rehabilitating existing TPSS and TBS locations where critical safety and reliability issues currently exist to thereby minimize impacts observed and experienced by transit passengers

#### Improve reliability & overall customer experience

- Continue work on elevating flood-prone vent shafts to reduce the amount of water coming into the system thereby reducing corrosion of components, increasing their lifespans and reducing risks of a catastrophic flood
- Continue rehabilitation of Alexandria and Brentwood yard facilities replacing/rehabilitating railcar lifts, improving lighting systems, replacing switch gears to provide for a safe working environment and more reliable equipment
- Continue traction power work replacing switchgears to ensure reliable operations of power stations
- Deliver new Cinder Bed Road bus garage with a fully modern Leadership in Energy and Environmental Design (LEED) located in Lorton, VA with the capacity of 160 buses.
- Install station entrance canopies at several Metro stations to protect escalators and public from weather conditions
- Continue to test interlocking corrosion levels at 30 locations
- Upgrade the electrical infrastructure required to maintain a state-of-good repair based upon assessment of existing electrical infrastructure and prioritization of rehabilitation efforts

#### Alter Fiscal Trajectory & Renew jurisdictional confidence

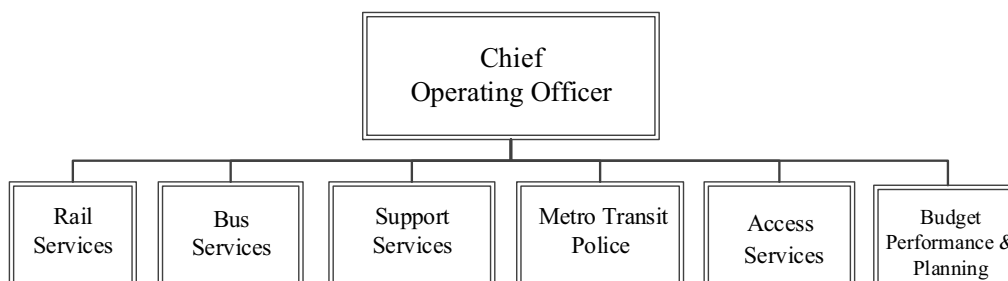
- Provide analytic and management support to successfully integrate recommendations from the FY2017 Agency Wide Energy Audit into the asset replacement schedule in order to manage and reduce Metro's annual energy budget

- Invest in station lighting improvements to significantly decrease energy consumption and vastly reduce maintenance costs
- Implement a cost-effective and systematic rehabilitation program for the existing electrical infrastructure based upon assessment of the current condition of the infrastructure

#### FY2017 Major Accomplishments

- Substantially completed construction of the new Cinder Bed Road Bus garage replacing Royal St. Bus Garage
- Awarded a contract to replace existing radio systems with new generation 700MHz radio systems. Completed several segments of cable and infrastructure work in support of the overall scope of the program
- Completed replacement of electrical equipment in four AC Switchboard Rooms
- Completed installation of the pilot fare evasion equipment
- Completed upgrade and replacement of equipment at four traction power substations
- Completed replacement of ventilation and exhaust fans at 14 stations and two drainage pumping stations
- Completed rehabilitation of Minnesota and Deanwood Station Platforms and ceiling tile at Rosslyn and Pentagon City stations
- Completed Franconia/Springfield and Pentagon Transit Center Bus Bay improvement work
- Completed installation of new switchgear, new boilers and boiler plant equipment at the Plant Maintenance Building TSSM at Alexandria Rail Yard
- Completed construction of the railcars access platforms at New Carrollton S&I Shop
- Completed rehabilitation of three parking garages; Suitland, Southern, and Vienna South
- Completed installation of Portal Alarm Warning system at West Hyattsville, Southern Ave., Naylor Rd. and Suitland
- Completed installation of all new wayside impedance bonds and new ATP modules to replace Gen. II Alstom track circuit modules and associated wayside impedance bonds
- Completed cable testing for all track circuit cables for Gen. II modules per NTSB recommendations
- Completed corrosion control testing for 30 interlockings

## Chief Operating Officer



<i>(Dollars in Thousands)</i>	Actual 2015	Actual 2016	Approved 2017	Approved 2018	\$ Variance	% Change
Personnel	\$1,043,355	\$1,090,564	\$1,031,977	\$779,093	(\$252,884)	-24.5%
Non-Personnel	274,146	355,537	346,061	359,495	13,434	3.9%
<b>Total Cost</b>	<b>\$1,317,501</b>	<b>\$1,446,101</b>	<b>\$1,378,038</b>	<b>\$1,138,588</b>	<b>(\$239,450)</b>	<b>-17.4%</b>
Authorized Positions	11,206	11,228	11,262	10,676	-586	-5.2%

1. FY2015 through FY2017 budgets include the department's respective share of all fringe expenses. The FY2018 budget includes only the department's respective share of unallocated fringe expenses due to a change in the recording of fringe expenses.

2. Authorized positions and expense figures reflect the department's approved headcount and budget based on Metro's FY2018 organizational structure.

The Department of Chief Operating Officer (COO) consists of Rail Services (RAIL), Bus Services (BUS), Access Services (ACCS), Office of Budget, Planning and Performance (OBPP), Metro Transit Police (MTPD) and Support Services (SSRV), which includes Plant Maintenance, Elevators/Escalators, Systems Maintenance, and Supply Chain.

The six organizations that comprise the COO department have business plans that articulate responsibilities and strategic action plans directed towards implementing the GM/CEO's priorities of improving safety, system reliability, security and overall customer experience.

## Rail Services

<i>(Dollars in Thousands)</i>	Actual 2015	Actual 2016	Approved 2017	Approved 2018	\$ Variance	% Change
Personnel	\$370,742	\$404,306	\$359,730	\$254,926	(\$104,804)	-29.1%
Non-Personnel	58,830	142,195	122,592	117,972	(4,619)	-3.8%
<b>Total Cost</b>	<b>\$429,573</b>	<b>\$546,501</b>	<b>\$482,322</b>	<b>\$372,898</b>	<b>(\$109,424)</b>	<b>-22.7%</b>
Authorized Positions	4,332	4,383	4,415	4,059	-356	-8.1%

1. FY2015 through FY2017 budgets include the department's respective share of all fringe expenses. The FY2018 budget includes only the department's respective share of unallocated fringe expenses due to a change in the recording of fringe expenses.
2. Authorized positions are based on the department's approved headcount of the respective fiscal year budget, and represents the organizational structure of the department at that point in time. Expense figures consist of the costs allocated to the department based on Metro's FY2018 structure, irrespective of the associated fiscal year headcount.

The Office of Rail Services (RAIL) provides customers with a safe, courteous and reliable transit experience that demonstrates Metro's renewed commitment to the mission of the Authority and to the region's riding public. The Office of Rail Services provides rail service across 117 miles of track and 91 stations, 40 of which are in Washington, D.C., 26 in Maryland and 25 in Virginia.

Rail Services is focused not only on daily Metrorail operations, but also on railcar and track and structure maintenance. The Office is comprised of Rail

Transportation (RTRA), Chief Mechanical Officer (CMOR) - which includes Car Maintenance (CMNT) and Chief Engineer Vehicles (CEBV), Track and Structures (TRST), Automatic Train Control Maintenance (ATCM), Material & Inventory Planning (MIPN), Traction Power Maintenance (TRPM), and Reliability Centered Maintenance Planning (RCMP). RAIL is responsible for all facets of rail operations including station operations, train operations and rail operations control center including maintenance operations center.

Performance Indicator	Actual FY2015	Actual FY2016	Target FY2017	Target FY2018
<b>Improve Safety &amp; Security and Restore Public Trust</b>				
ATC Vacancy Rate	3%	<=6%	TBD	TBD
CMOR Employee Injury Investigation Compliance	NA	Improve	100%	100%
<b>Improve reliability and win back riders</b>				
Speed Restrictions - Average Time Duration	14 days	<3 days	<3 days	<3 days
ATC Preventive Maintenance Compliance	97%	98%	98%	98%
Railcar Availability CMOR	83%	85%	Meet/Exceed Service Requirements	Meet/Exceed Service Requirements
<b>Alter fiscal trajectory and renew jurisdictional confidence</b>				
TRST Capital Funds Invested (% Budget Utilization)	98%	<100%	<100%	<100%
Track Circuit Incidents	290	291	276	Improve by 5%
PM/Inspection Compliance (Steel-Wheeled Rolling Stock)	95%	95%	95%	95%

### FY2018 Business Plan Responsibilities

Each RAIL office's business plan provides direction on day to day actions that help Metro progress toward the agency's strategic goals.

- Support the safe and reliable movement of trains by maintaining wayside automatic train control systems
- Ensure track and structures are available to support rail service with planned maintenance
- Provide safe, reliable and clean railcars to meet service demand
- Provide constant, reliable power for facilities and rail

- Support the rehabilitation and replacement of wayside equipment
- Provide comprehensive maintenance of Roadway Maintenance Machines to ensure safe and reliable maintenance to the railroad infrastructure
- Improve worksite safety and compliance
- Conduct data analysis and reporting on performance of rail assets to improve safety and reliability

### New to FY2018

- Ensure track rail infrastructure availability

- Implement Track Geometry Vehicle (TGV) Quality Control
- Track Emergency Response Team (EMT) average response time
- Benchmark useful life of steel wheel service vehicles
- Close Car Maintenance work orders within one week of receipt
- Track fatigue violations in coordination with Metro's focus on safety

### **Back2Good Plan and Other Actions**

Rail Services is aggressively working to increase safety and reduce delays caused by problems with the track and railcars while improving operations to increase customer satisfaction.

- Institute comprehensive track preventive maintenance efforts
- Convert all 8-car trains to 7000 series railcars
- Execute a "Get Well" Program for railcars, which focuses on improving reliability of our legacy fleet by addressing recurring problems with railcar doors, propulsion, brakes and HVAC

### **FY2017 Major Accomplishments**

- Railcar related delays were down 16 percent in CY2016
- Railcar related offloads were down 17 percent in CY2016
- Decommissioned all 1000 and 4000 series railcars
- Commissioned 378 7000 series railcars by continuous improvement in commissioning process
- Track-related delays were down 7 percent in CY2016
- New Track Inspection Training Program instituted
- Track and Structure capital projects within 98 percent of budget
- Automatic Train Control Maintenance (ATCM) Roadway Worker Protection compliance rate of 99.72 percent

## Bus Services

<i>(Dollars in Thousands)</i>	Actual 2015	Actual 2016	Approved 2017	Approved 2018	\$ Variance	% Change
Personnel	\$400,585	\$406,544	\$386,641	\$305,020	(\$81,621)	-21.1%
Non-Personnel	72,307	62,726	71,922	68,888	(3,034)	-4.2%
<b>Total Cost</b>	<b>\$472,892</b>	<b>\$469,270</b>	<b>\$458,563</b>	<b>\$373,908</b>	<b>(\$84,656)</b>	<b>-18.5%</b>
Authorized Positions	4,087	4,097	4,086	3,947	-139	-3.4%

1. FY2015 through FY2017 budgets include the department's respective share of all fringe expenses. The FY2018 budget includes only the department's respective share of unallocated fringe expenses due to a change in the recording of fringe expenses.

2. Authorized positions and expense figures reflect the department's approved headcount and budget based on Metro's FY2018 organizational structure.

The Office of Bus Services (BUS) is committed to being an integral part of the Washington metropolitan area by ensuring the safest, cleanest, most reliable, cost effective and responsive bus service, while promoting regional mobility and contributing to the social, economic, and environmental well-being of the community.

Bus Services is the transportation provider for more than 132 million customers each year, and is responsible for the

operation, maintenance, and scheduling of Metrobus routes in the District of Columbia, Virginia, and Maryland.

Metrobus is responsible for approximately 1,583 buses, 257 routes, 165 lines and 3,947 employees. Additionally, Bus Services handles the maintenance of Metro's service vehicles and equipment and manages the DC Circulator contract (a reimbursable project).

Performance Indicator	Actual FY2015	Actual FY2016	Target FY2017	Target FY2018
<b>Improve Safety &amp; Security and Restore Public Trust</b>				
Employee Injury Rate (per 200,000 work hours)	10.67	11.10	9.8	9.8
Customer Injury Rate (per million passengers)	2.30	2.59	2.45	2.45
Preventable Traffic Accident Rate per million miles	20.10	23.30	19.40	19.40
<b>Improve reliability and win back riders</b>				
On-Time Performance	75%	76%	79%	79%
Customer Complaints (per million passenger trips)	96	116	109	109
Fleet Reliability	7,101	8,225	8,000	8,000
<b>Alter fiscal trajectory and renew jurisdictional confidence</b>				
Absenteeism (Operators)	14.4%	14.3%	13.8%	13.8%
Absenteeism (Maintenance)	4.0%	3.0%	< 5.0%	< 5.0%

### FY2018 Business Plan

Bus Services has two offices: Bus Transportation (BTRA) and Bus Maintenance (BMNT). Each office's business plan details how Bus Services' day-to-day actions help Metro progress towards the agency's strategic goals.

- Reduce employee injury rate through the use of proactive safety programs, investigate all injury cases and counsel employees with multiple injuries
- Minimize customer injuries through continuous employee training, service adjustments to maintain schedules and work with jurisdictions to improve traffic conditions
- Continue improvement of the Priority Corridor Network (PCN) and other services, to improve on-time performance (OTP) to reach Metro's goal of 79 percent
- Perform service evaluations to determine Metrobus route improvements
- Investigate all incidents caused by mechanical failures and reported fires, utilizing maintenance history to determine the root cause and suggest actions to minimize future incidents
- Install front strobe lights on entire fleet to increase visibility, reducing collisions and pedestrian incidents
- Work proactively with Human Resources to fill vacancies to minimize overtime requirements and ensure that all work elements are done in a timely fashion
- Implement bus operators training for Fatigue Management and National Incident Management System (NIMS)

- Continue customer communication efforts with bus operator to improve their skills, reduce complaints and minimize assaults
- Produce service assignments that support safe, reliable and on-time Metrobus services
- Continue to evaluate the effectiveness of bus schedules to maintain on-time-performance

*Bus Services' business plan focuses on actions for the provision of safe, efficient and reliable service.*

### ***New to FY2018***

- Meet vehicle requirements for Cinder Bed Road and Andrews Federal Campus
- Manage route services assigned to Cinder Bed Road and Andrews Federal Campus to minimize nonproductive miles traveled
- Work with AFC Engineering and Treasury to introduce pilot fare box deployment from Cubic
- Update bus specifications for next 5-year bus procurement
- Restructure Street Operation Staff, assigning managers to monitor impacts on route performance and communicate resolution to appropriate departments
- Invest in employee development and career progression under the employee succession planning
- Per the Safety Rule Compliance Check Program; conduct random audits of bus operators to ensure compliance with safety rules
- Complete the New Freedom and Bus Livability Grant Funded Projects that deploy more Real Time Passenger Information (RTPI) displays and make

ADA accessible improvements to regional bus stops

- Expand Traffic Signal Prioritization (TSP) to various regional Priority Corridor Networks (PCNs) and other transportation corridors to help speed up buses by delaying traffic signals for them

### **Back2Good and Other Actions**

- Improve personal safety and security for bus operators
- Improve customer safety by emphasizing defensive driving tactics during bus operator training
- Schedule safety blitzes at incident hotspots to reinforce safe behavior and address unsafe conditions
- Conduct active street management on low-performing routes (e.g., supervisor ride-alongs)
- Improve bus fleet reliability
- Partner with regional and state DOTs to introduce traffic signal prioritization in key bus priority corridors to reduce travel times
- Close out FTA corrective actions as identified in the Safety Management Inspection Report

### **FY2017 Major Accomplishments**

- Completed receipt of 295 buses three months ahead of schedule, allowing the Office of Bus Services to retire 164 CNG buses that were previously purchased in 2001 and 2002
- Completed the rollout of the new bus prediction system BusETA to provide improved customer service
- Completed the 2000th rehabilitation milestone of buses under the capital program

## Access Services

<i>(Dollars in Thousands)</i>	Actual 2015	Actual 2016	Approved 2017	Approved 2018	\$ Variance	% Change
Personnel	\$6,422	\$6,382	\$6,259	\$4,534	(\$1,725)	-27.6%
Non-Personnel	103,165	107,727	105,025	108,450	3,425	3.3%
<b>Total Cost</b>	<b>\$109,587</b>	<b>\$114,109</b>	<b>\$111,284</b>	<b>\$112,984</b>	<b>\$1,700</b>	<b>1.5%</b>
Authorized Positions	56	56	53	50	-3	-5.7%

1. FY2015 through FY2017 budgets include the department's respective share of all fringe expenses. The FY2018 budget includes only the department's respective share of unallocated fringe expenses due to a change in the recording of fringe expenses.

2. Authorized positions and expense figures reflect the department's approved headcount and budget based on Metro's FY2018 organizational structure.

The Department of Access Services (ACCS) ensures that Metro provides safe, reliable and accessible transportation to senior citizens and people with disabilities, and develops and implements integrated mobility solutions to ensure the ongoing sustainability of ADA paratransit service.

ACCS is responsible for:

- MetroAccess ADA paratransit service delivery
- Metro accessibility policy leadership
- Ensuring ADA and FTA compliance, and serving as Ombudsman for related issues
- Accessibility planning and design support
- Accessibility Advisory Committee staffing and support
- Customer eligibility determination for MetroAccess, Reduced (Half) Fare Program, and Free Ride Benefit
- Outreach and travel training to provide the most independent travel choices to customers with disabilities

ACCS supports the cause of accessibility through its three offices: ADA Policy & Planning (ADAP); Eligibility Certification & Outreach (ELIG), and MetroAccess

Service (MACS). ADAP, principally a policy office, provides guidance on the application of ADA to Metro business; interacts with operations departments to ensure that existing and future fleets and facilities continue to be both ADA compliant and optimally accessible; and engages regional organizations and policy makers to ensure that funding and resources are effectively channeled to sustain accessibility for a growing constituency. ELIG responds directly to those customers with disabilities who approach Metro seeking accessible transportation options to navigate the region. ELIG matches the customer with the service or product that most effectively meets the customer's need (with an eye toward bus and rail wherever possible, and augmented by proactive community outreach and travel training functions) while conserving the greater levels of assistance (i.e., paratransit service) for those customers who would have no other options. MACS provides the vital paratransit service that spans the region. MACS contract compliance staff work in conjunction with contractors (service delivery (three contractors), call center operations, and quality assurance) that provide turnkey operational service to Metro. MetroAccess serves over two million customers per year.

Performance Indicator	Actual FY2015	Actual FY2016	Target FY2017	Target FY2018
<b>Improve Safety and Security and Restore Public Trust</b>				
Preventable incidents per 100,000 service miles	1.38	1.53	2.00	2.00
Passenger injuries per 100,000 passengers	1.78	2.67	3.00	3.00
<b>Improve reliability and win back riders</b>				
On-time performance	93%	90%	92%	92%
Valid customer complaints per 1,000 trips requested	4.10	5.39	< 5.0	< 5.0
<b>Alter fiscal trajectory and renew jurisdictional confidence</b>				
Free-ride trips taken on Metrobus and Metrorail	2.44	2.70	2.50	2.75
Trips taken on Paratransit Alternatives	-	221,249	250,000	275,000

### FY2018 Business Plan

The ACCS Business Plan is centered on three strategic objectives:

- All of Metro's services are safe, reliable, and continuously accessible to a diverse customer base, including senior citizens and people with disabilities

- MetroAccess paratransit service is delivered safely, efficiently, and in compliance with the ADA
- Specialized transportation alternatives are fully leveraged to ensure the ongoing sustainability of MetroAccess

ACCS is developing and implementing long-term policy and operational strategies that support the optimal use, and more efficient delivery, of paratransit services and greater use of paratransit alternatives.

Growing ridership requires a regional strategy emphasizing demand management. MetroAccess ridership increased from just under a million trips in 2003 to 2.4 million trips in 2010. The increase was driven largely by an aging population and reduction in services offered by human service agencies. Metro implemented a series of demand management strategies that lowered annual MetroAccess ridership to 2.1 million trips. Driven again by the ‘senior age wave’ and reductions in human service agency transportation, growth has resumed and is estimated to be 2.3 million trips in FY2018.

#### ***New to FY2018***

- ACCS is pursuing more non-ADA paratransit alternatives, such as Abilities-Ride and vehicle transfers to human service agencies that enable them to operate their own paratransit services, saving money for Metro and jurisdictions and providing better service to customers
- ACCS will reallocate demand for paratransit service among a greater number of dedicated providers and external services subsidized by Metro to ensure the ongoing sustainability of MetroAccess

#### **Back2Good and Other Actions**

- Address increase in demand for MetroAccess by developing alternatives, including Abilities-Ride, a same-day transportation service subsidized by Metro for trips beginning and ending in Maryland, which is a key feature in FY2018.

#### **FY2017 Major Accomplishments**

- Developed the business model for Abilities-Ride, an on-demand, general-purpose alternative service to MetroAccess which seeks to use transportation networking companies and others. The program is designed to reflect Metro’s principles of safety, accessibility, and service quality, while lowering overall cost.
- Partnered with Office of the Treasurer to convert the conditionally-eligible MetroAccess ID card to a SmarTrip card, giving autonomous entry into the fixed-route system to over 22,000 customers with disabilities and their companions, which will free up rail station managers for other duties and yield additional travel data for management analysis.
- Awarded a contract for MetroAccess fleet vehicles and began taking delivery of 207 Ford Transit high roof vans. The new fleet vehicles feature safety improvements and greater fuel efficiency, and improve reliability and increase On-Time Performance (OTP) outcomes.
- Implemented a program to donate surplus vehicles to Human Service Agencies (HSA) in return for their provision of MetroAccess trips. In CY2016, donated 17 vehicles, which removed approximately 4,000 trips from MetroAccess, saving \$175 thousand. HSAs used the vehicles to provide approximately 7,000 trips, avoiding \$300 thousand in costs if trips had been provided on MetroAccess.
- Created a user-friendly, web-based tool that shows real-time and recent MetroAccess van positions using geographic information system (GIS) overlay data. This tool provides robust vehicle monitoring capabilities and a safety alert when a vehicle with a passenger leaves a route and goes out of service, enhancing safety, security, and productivity.

## Metro Transit Police

<i>(Dollars in Thousands)</i>	Actual 2015	Actual 2016	Approved 2017	Approved 2018	\$ Variance	% Change
Personnel	\$68,417	\$72,839	\$73,289	\$57,675	(\$15,614)	-21.3%
Non-Personnel	2,835	4,393	7,176	6,970	(205)	-2.9%
<b>Total Cost</b>	<b>\$71,252</b>	<b>\$77,231</b>	<b>\$80,464</b>	<b>\$64,645</b>	<b>(\$15,819)</b>	<b>-19.7%</b>
Authorized Positions	746	729	726	694	-32	-4.4%

1. FY2015 through FY2017 budgets include the department's respective share of all fringe expenses. The FY2018 budget includes only the department's respective share of unallocated fringe expenses due to a change in the recording of fringe expenses.

2. Authorized positions and expense figures reflect the department's approved headcount and budget based on Metro's FY2018 organizational structure.

The Metro Transit Police Department is responsible for the protection of Metro customers, personnel, and transit facilities over a 1,500 square mile Transit Zone, comprised of three jurisdictions.

The Metro Transit Police Department (MTPD) is composed of both uniformed and plain clothes sworn Police Officers charged with the duty of enforcing the laws of the signatories; the laws, ordinances and regulations of the political subdivisions; and the rules and regulations of

Metro. Additionally, Special Police Officers are responsible for the physical security at rail yards, bus divisions, and other Metro properties. The Office of Emergency Management (OEM) civilian personnel plan, train, and provide on-scene assistance for both natural and man-made emergencies. It is also responsible for digital video management and police radio communications. Finally, MTPD is responsible for crime analysis, records management, and various administrative support functions.

Performance Indicator	Actual FY2015	Actual FY2016	Target FY2017	Target FY2018
<b>Improve Safety and Security and Restore Public Trust</b>				
Crime Rate	1,654	1,569	1,750	TBD
Employee Injury Rate Target 4.5 per 200,00 hours worked	12.16	5.4	8.4	TBD

### FY2018 Business Plan

MTPD's business plan includes the following:

- Add Fire Life Safety positions which will enhance the OEM's support for regional first responders and regional first responder training
- Begin civilianizing training instructors currently staffed by Sworn Officers

#### New to FY2018

- MTPD expects to increase staff by exploring hiring initiatives and tailoring performance evaluations to department needs
- Strengthen community policing orientation through training and community outreach (21st Century Policing, Respect Your Ride, De-escalation training, etc.)
- Achieve safety objectives (PROTECT, Quarterly OEM exercises, FTA corrective actions) and ensure MTPD input shapes new independent safety commission

- Build crime analysis capabilities (e.g., system for real-time crime information, Command Central crime analytical reporting tool, camera sharing), reiterate focus on accurate reporting, and successfully transition to FBI's National Incident-Based Reporting System (NIBRS)
- Develop internal intelligence capability within Homeland Security, Intelligence and Investigation Bureau (HSIIB)
- Explore opportunities to streamline internal business operations and leverage technology investments (e.g., improved timekeeping system)

### FY2017 Accomplishments

- Increased visibility of Transit Police throughout the system with a new high visibility uniform and bullet resistant vest
- Enhanced the Office of Emergency Management with the support of additional Fire Life Safety positions
- Began the process of recruiting for a civilian training instructor at the MTPD weapons training facility

## Support Services

<i>(Dollars in Thousands)</i>	Actual 2015	Actual 2016	Approved 2017	Approved 2018	\$ Variance	% Change
Personnel	\$163,843	\$166,323	\$165,657	\$131,047	(\$34,610)	-20.9%
Non-Personnel	35,239	34,611	33,960	51,949	17,989	53.0%
<b>Total Cost</b>	<b>\$199,082</b>	<b>\$200,934</b>	<b>\$199,617</b>	<b>\$182,996</b>	<b>(\$16,620)</b>	<b>-8.3%</b>
Authorized Positions	1,735	1,715	1,718	1,714	-4	-0.2%

1. FY2015 through FY2017 budgets include the department's respective share of all fringe expenses. The FY2018 budget includes only the department's respective share of unallocated fringe expenses due to a change in the recording of fringe expenses.

2. Authorized positions and expense figures reflect the department's approved headcount and budget based on Metro's FY2018 organizational structure.

The Office of Support Services is comprised of Systems Maintenance (SMNT), Plant Maintenance (PLNT), Supply Chain Enterprise Services (SCES), and Elevator and Escalator (ELES).

- SMNT is responsible for the electronic and electrical maintenance activities related to Rail wayside operations.
- PLNT manages and maintains Metro's facilities and mechanical equipment systems in support of Metrorail and Metrobus operations by maintaining facilities, grounds, and mechanical equipment in a state of good repair. Plant maintenance performs services at 91 rail stations, 48 non-revenue facilities (i.e. located in rail

yards, bus divisions and administration office buildings), 29 parking garages, 252 parking lots, and 213 power sub-stations.

- SCES is dedicated to providing quality inventory management services and warehousing solutions to support to Car Maintenance, Plant Maintenance, Tracks and Structures. The Office of Supply Chain operates a supply facility and several satellite stores.
- ELES maintains all vertical transportation equipment within the auspices of the Authority. ELES is committed to providing the safe and reliable service through the use of technology, training, and education.

Performance Indicator	Actual FY2015	Actual FY2016	Target FY2017	Target FY2018
<b>Improve Safety &amp; Security and Restore Public Trust</b>				
Employee injury rate	<3	5	<3	<3
Employee injury investigations completed within 30 days	N/A	100%	100%	100%
Corrective Action compliance rate for Supply Chain Enterprise Services, Federal Transit Administration, SMI TOC	N/A	100%	100%	100%
Material handling training certification compliance	N/A	100%	100%	100%
Safety Data Sheet (SDS) Audits	100%	100%	100%	100%
<b>Alter fiscal trajectory and renew jurisdictional confidence</b>				
Reduction of inactive stock numbers in system	n/a	n/a	10%	10%
Reduction of unproductive stock material	n/a	n/a	20%	20%
Surplus process compliance	n/a	n/a	100%	100%

### FY2018 Business Plan

- Ensure preventive maintenance schedules are adhered to for tunnel fans, fire suppression systems, tunnel emergency exits, emergency evacuation carts and drainage pumping stations.
- Participate in cross-agency monthly meetings to prioritize and address station/facility maintenance repairs to minimize risk of injury and improve employee engagement.
- Complete injury investigations within 30 days of being reported.

- Conduct biannual Safety Stand Down to re-emphasize seven key safety issues for safe elevator/escalator maintenance.
- Work with Communications and Rail Transportation to identify strategies to enhance service disruption reporting for customers (i.e. announcements, email, alerts, website reports, station signage, etc.)

### New to FY2018

- Improve station environment through the development of new software to improve train prediction information for displays and internet

applications, as well as the enhancement of track and platform area lighting

- Monitor chiller & cooling tower water treatment via remote monitoring
- Maintain fuel system monitoring equipment
- Initiate Roof Asset Management Program

### **Back2Good and Other Actions**

- Strike team efforts to pilot station improvements including improved cleanliness, equipment availability, lighting and other basic amenities
- Improve station environment by upgrading unreliable elevators and escalators

### **FY2017 Major Accomplishments**

- Conducted internal safety audits resulting in new racks and fencing for storerooms
- Added the material handling equipment certification to the Enterprise Learning Management System (ELM)
- Developed safety kits for every location (Storeroom/Warehouse)
- Met compliance obligations of FTA and SMI audit responses and the supply chain Security Management System (SMS) training

- Established the Supply Chain Small or Medium Enterprises (SME) group
- Completed transition of the Parts Management Approval Process to the maintenance organizations, streamlining the purchases stock parts for bus and rail maintenance
- Provided Supply Chain Operations Reference – Professional (SCOR-P) training for all supply chain management
- Implemented the “Lean Warehouse” concept of achieving strategic delivery needs by improving materials flow, order pick & pack, dock operations and maintenance of a information flow from source to delivery point, thus facilitating the coordination of the entire supply chain to get purchased materials to the right place and in the exact time they are expected
- Reduced stock-out rate by 32 percent and out of service vehicles
- Continued to maximize revenue recovery related to surplus and obsolete parts and materials
- Initiated the disposal process for the 1000 and 4000 series railcars
- Improved of inventory accuracy by implementing standardized cycle counts

## COO Office of Budget, Performance and Planning

<i>(Dollars in Thousands)</i>	Actual 2015	Actual 2016	Approved 2017	Approved 2018	\$ Variance	% Change
Personnel	\$32,760	\$33,618	\$39,409	\$25,246	(\$14,163)	-35.9%
Non-Personnel	693	1,671	2,996	2,335	(662)	-22.1%
<b>Total Cost</b>	<b>\$33,453</b>	<b>\$35,289</b>	<b>\$42,406</b>	<b>\$27,581</b>	<b>(\$14,825)</b>	<b>-35.0%</b>
Authorized Positions	246	241	258	207	-51	-19.8%

1. FY2015 through FY2017 budgets include the department's respective share of all fringe expenses. The FY2018 budget includes only the department's respective share of unallocated fringe expenses due to a change in the recording of fringe expenses.

2. Authorized positions and expense figures reflect the department's approved headcount and budget based on Metro's FY2018 organizational structure.

The Office of Budget, Performance and Planning (OBPP) is the administrative arm for the Chief Operating Officer. OBPP provides oversight and consistency to related functions while driving performance throughout Operations.

- Operation Management Service (OPMS) ensures Metro's internal clients are well-equipped to service the Authority's external customers, supporting responsible budgeting, training and internal clients who maintain and safely deliver the premium transit experience.
- The Office of Performance (CPO) aligns Metro in achieving its strategic goals by measuring and publicly reporting results via a set of Key Performance Indicators (KPI's), and produces and presents to the Board of Directors the quarterly Vital Signs Report, which communicates why performance has changed and what actions will be taken to improve. CPO works collaboratively across the agency to turn data into performance information to help prioritize decision making on actions. Products and services include performance reporting (Vital Signs, GM/CEO reports), target-setting (KPI's, MAP-21 measures), monthly performance stat meetings, industry benchmarking, business plan development, and departmental risk management.
- The Office of Intermodal Planning (IPLN) performs operations planning for all rail and bus operations, including headway and route definitions, manpower and vehicle requirements. In addition, IPLN coordinates the implementation of all changes including work assignments, signage changes, facility improvements and coordination efforts with other local carriers and jurisdictions.
- CPO will work collaboratively with all departments improve data integrity, to include:
  - Enhanced performance measures, reporting process and deliverables, as well as support performance review meetings
  - Research and develop new and improved measures that augment Vital Signs such as bus customer travel time and federally-required measures for the condition of capital assets
- IPLN will focus on the following:
  - Develop rail and service plans to reflect the changes required to meet the FY2018 budget
  - Analyze and implement running time adjustments to improve service reliability for both rail and bus operations
  - Support all major track work projects with revised rail schedules and complimentary bus services specific to each project

### New to FY2018

- Develop training plans for all operational and mechanical classifications
- Complete development of comprehensive Track Inspection Training Program, certify instructor and implement inspector training
- Develop and implement Emergency Management standard operating procedure computer-based-training for all frontline supervisors
- Incorporate benchmarking in Annual Vital Signs Report
- Lead development of four new FTA-required Transit Asset Management (TAM) performance measures & facilitate annual targets updates
- Partner with HR to build business planning into Individual Performance Plans
- Schedule to start-up of the new Bus Maintenance Facility at Cinderbed Road and restructure the

### FY2018 Business Plan

- OPMS will assist departments to maintain tight budget controls, control employee absenteeism and availability, and ensure operations employees are properly trained to perform safely

service from the existing facilities (i.e. applying hand breaks) to ensure appropriate time in operator's daily assignments

- Implement new express bus service by rationalizing in the overall service corridor

### **Back2Good and Other Actions**

- Deliver newly developed train operator, station manager and rail operations supervisor curriculum
- Deliver communications familiarization 10-week course to all Communications personnel
- Develop parts acquisition measure
- Streamline customer-facing Vital Signs Report
- Improve rail and bus on-time performance by implementing new running times
- Support the safety changes being implemented by Rail Transportation (i.e. applying hand breaks in rail yards and additional time for rail car washing) through assessment of work assignments
- Develop performance dashboard for managers
- Monitor and reduce unscheduled overtime

### **FY2017 Major Accomplishments**

- Implemented Car Maintenance computer-based training needs assessment for critical areas
- Completed and commenced radio communication course and supervisor quality control course
- Revised and published Absenteeism Policy/Instruction
- Developed and launched Rail Customer On-Time measure and MyTripTime personalized On Time Score on wmata.com (paper co-wrote by Performance Office staff received Transportation Research Board William P. Millar Award for Public Transportation)
- Established SafeTrack progress reporting on wmata.com updates to the GM's Customer Accountability Reports (CARE)
- Implemented the new G9 Metro Extra bus service on Rhode Island Avenue and the new service to National Harbor
- Implemented new computer software for rail scheduling resulting in more efficient schedules
- Incorporated the new fatigue, attendance and grievance policies into the operational software.



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## Chapter 4 - Capital Budget



Wiehle-Reston East Metro Station

## Overview

Metro's FY2018-FY2023 Capital Improvement Program (CIP) totals \$7.2 billion (which includes \$208 million of planned repayment for short-term debt used in FY2017) with funding from the federal government, state and local contributions, long-term financing, and other sources. Of this amount, \$1.25 billion is planned for investment in FY2018.

Metro's capital program is grouped into six major Investment Categories, which are comprised of 17 Programs. The Categories and Programs group investments by both asset type and function. Within each Program, investments are structured into four functional classifications – Safety, State of Good Repair & Minor Projects; Major Active Capital Projects; Development & Evaluation initiatives (D&E); and Future Major Projects.

*Safety, State of Good Repair, & Minor Projects* is the largest segment of the capital program. This includes annual, recurring investments in the replacement, rehabilitation, and maintenance of existing assets to ensure the safety of Metro's core infrastructure and to promote a state of good repair. Prioritization of assets for replacement or rehabilitation is done using the age and condition of specific assets. Examples of Safety and State of Good Repair investments include, among others: railcar component maintenance and rehabilitation; bus and paratransit vehicle repair, rehabilitation, and replacement; rail crosstie and track fastener replacement; track circuit replacement; power cable replacement; and elevator/escalator repair, rehabilitation, and replacement. These programs also include efforts to comply with oversight recommendations and capital maintenance requirements.

*Major Active Capital Projects* are large, multi-year construction and acquisition projects, such as the construction of a new maintenance facility or the acquisition of railcars. Several major capital projects are currently underway, including the 7000 series railcar acquisition; construction of the Cinder Bed Road and Andrews Federal Center Bus Maintenance and Storage facilities; the Radio and Wireless Infrastructure project, which will facilitate wireless communication in the underground segments of the rail system and upgrade radio communications system-wide; and construction of Silver Line Phase 2 to Dulles Airport and Loudoun County, for which Metro is providing technical support.

*Development & Evaluation Initiatives* are potential major capital investment needs that have not advanced to full projects. D&E proposals will be evaluated using project management best practices and must pass decision points for advancement to the next stage of development. This process ensures that capital investments are efficient and

effective and that project risks are mitigated prior to initiation or commitment. The D&E process also helps to ensure that projects have clearly defined scopes, schedules, and cost estimates with appropriate consideration for risks and alternative solutions. Funding will be allocated when initiatives are sufficiently developed to advance to the next stage. When initiatives are fully developed and evaluated, they can become Major Projects which require full funding for construction and/or acquisition. For the FY2018-FY2023 capital program cycle, Metro has included funding for D&E and project initiation, but full cost estimates for these potential projects will only be identified when the needs are fully developed into Major Projects.

The following needs are included in the FY2018-FY2023 program and will proceed through the D&E process:

- Red Line Water Remediation
- 2000/3000 Series Railcar Replacement
- Red Line Core Capacity
- Tunnel Ventilation
- Bladensburg/Northern/Western Bus Garages
- Rosslyn Tunnel
- Metro Office Facilities

As the recently initiated Capital Needs Inventory (CNI) process matures and is refined, it is expected that additional candidates for the D&E process will be identified, subject to the availability of funding and regional and system capacity to advance major capital projects.

*Future Major Projects* represent provisional funding for projects that move forward after the D&E process. FY2018 investments are considered current, and therefore all Future Major Projects funding falls into FY2019-FY2023

Of the \$1.25 billion of planned capital investments in FY2018, \$607 million will be invested in Safety, State of Good Repair, & Minor Projects investments, \$628 million will support Major Projects, and \$15.2 million will advance D&E activities.

## Investment Categories

### *Railcar Investments*

The Railcar Investment category includes three programs: Railcar Acquisition; Railcar Maintenance & Overhaul; and Railcar Maintenance Facilities. Over the next six years, investment priorities in this category will address major projects and safety imperatives within each program.

As part the Back2Good initiative, Metro will implement a “Get Well” initiative for railcars – accelerating the retirement of the oldest and least reliable cars, commissioning 224 new 7000 series railcars, implementing targeted repair campaigns to address defective components on the legacy fleet, and rebalancing railyards to reduce terminal dispatch failures.



Specifically, Metro will acquire 224 new 7000 series railcars in FY2018 and replace all 1000 and 4000 series cars by the end of calendar 2017. With these new vehicles, Metro will also begin operating all of its 8-car trains with 7000 series railcars to improve train line performance.

As Metro eliminates the burden of maintaining and operating the least reliable cars, rail yards will be rebalanced to optimize railcar maintenance and train deployment.

Component improvements on the legacy fleet, including the 2000, 3000, 5000, and 6000 series railcars will include HVAC, propulsion systems, and pneumatic brakes to reinforce the safety and reliability of the fleet and to reduce train offloads.

### ***Rail Systems***

The Rail Systems Investment category includes two programs: Propulsion and Signals & Communications. Investment priorities over the next six years are focused on safety, state of good repair and capacity improvements in rail propulsion power systems and communication systems in support of Metro’s continued deployment of 8-car trains.



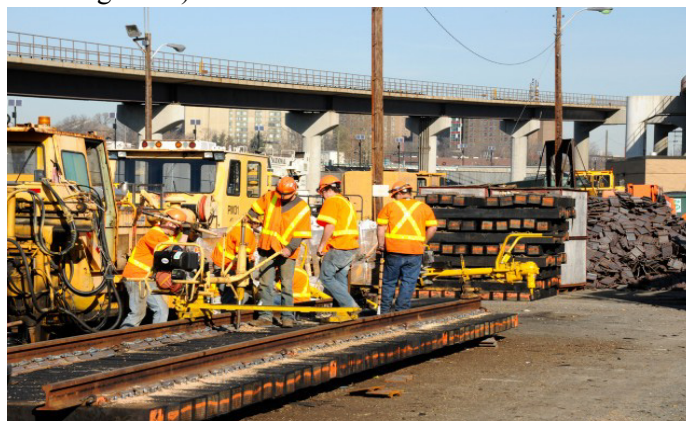
Metro will also complete power upgrades to enable the entire Orange and Blue Line portions of the Metrorail system to safely and reliably operate all 8-car trains, increasing system capacity for customers and reducing crowding during peak hours. Additional power upgrades to run all 8-car trains on the Red Line are planned to begin during the six year period.

Metro will also complete work to replace the existing Comprehensive Radio Communications System (CRCS) with a new system operating in the 700MHz band to provide a new radio and wireless communication infrastructure and improve safety, security, efficiency of operations, and customer convenience. Segments of the Blue/Orange and Red lines are planned for activation in 2017.

Additionally, Metro will address critical state of good repair needs in Automatic Train Control (ATC) equipment throughout the rail system as work on the replacement of all Generation 3 track circuits is completed.

### ***Track & Structures***

The Track & Structures Investment category includes two programs – Fixed Rail and Structures. The investment priorities in these areas will continue to be the rehabilitation and maintenance of the Metrorail track and right of way as well as regular repair and replacement of track components (such as running rail, crossties, and fasteners) and structures (such as bridges, tunnels, and retaining walls).



As the SafeTrack initiative comes to a close at the end of FY2017 – and the significant backlog of deferred track maintenance is reduced – Metro will phase in a regular, data-driven and safety-directed program of track maintenance and rehabilitation.

Metro’s track rehabilitation and maintenance program will address the significant repair and rehabilitation needed to lay the groundwork for the industry-standard preventive maintenance program outlined in Back2Good and to avert another accumulation of deferred maintenance. These efforts will mitigate the potential for emergency conditions

and allow operating preventative maintenance to reduce infrastructure-related train delays by half.

### ***Stations & Passenger Facilities***

The Station & Passenger Facilities Investment category encompasses three programs – Platforms & Structures, Vertical Transportation, and Station Systems.

Investment priorities over the next six years will focus on the repair, rehabilitation and replacement of elevators and escalators; capacity improvements at key stations including L'Enfant Plaza, Union Station, Gallery Place and Farragut North; six new stations to be added with the Silver Line Phase 2 extension to Dulles Airport and Loudoun County; and a new station at Potomac Yard on the Yellow and Blue Lines in the City of Alexandria.

Metro will invest heavily in lighting upgrades to increase visibility on mezzanines and platforms at key stations, modernize fare collection equipment and systems, rehabilitate parking garages and surfaces, and rehabilitate and replace station cooling infrastructure and equipment.



### ***Bus & Paratransit***

The Bus & Paratransit category covers four programs – Bus & Paratransit Acquisition, Bus Maintenance & Overhaul, Bus Maintenance Facilities, & Bus Passenger Facilities/Systems.

Metro's investments in these programs include the acquisition and regular replacement of buses and paratransit vans to maintain a safe and reliable vehicle fleet in accordance with approved fleet plans; the repair and rehabilitation of the existing bus fleet; and construction of new bus facilities at Cinder Bed Road and Andrews Federal Center – replacing two facilities that are both more than 90 years old. A new heavy repair and overhaul facility is being constructed at Andrews Federal Center as well.

In addition to the rehabilitation and replacement of bus maintenance facilities to improve safety and reliability, Metro will also improve accessibility for customers with

disabilities and install Real Time Passenger Information (RTPI) signs at bus passenger facilities across the region. The reconfiguration and construction of the King Street Bus loop will improve connections for all modes of transportation and access to the station.



### ***Business Support***

The Business Support Investment category includes three programs – Information Technology (IT), Metro Transit Police Department (MTPD), and Support Equipment & Services.

Investment priorities in these programs include MTPD equipment for public safety and security, system-wide facility roof replacement, and IT investments including a new time management system to better manage labor utilization and productivity across the agency, an enterprise financial system upgrade to improve financial management and reporting practices, and the integration of Geographic Information System (GIS) technology to leverage real time traffic data and optimize bus scheduling and planning. Investment priorities in these programs will include MTPD equipment for public safety and security, system-wide facility roof replacement, and IT investments including a new time management system to better manage labor utilization and productivity across the agency, an enterprise financial system upgrade to improve financial management and reporting practices, and the integration of GIS technology to leverage real time traffic data and optimize bus scheduling and planning.

Investment priorities in these programs include MTPD equipment for public safety and security, system-wide facility roof replacement, and IT investments including a new time management system to better manage labor utilization and productivity across the agency, an enterprise financial system upgrade to improve financial management and reporting practices, and the integration of GIS technology to leverage real time traffic data and optimize bus scheduling and planning.

## Financial Plan by Investment Category

<i>(Dollars in Millions)</i>	FY2018 Plan	FY2019 Plan	FY2020 Plan	FY2021 Plan	FY2022 Plan	FY2023 Plan	6 Year Total
Railcar	527.8	522.5	503.4	548.3	207.2	225.3	2,534.5
Rail Systems	126.6	170.7	166.7	136.9	138.8	118.3	858.0
Track and Structures Rehabilitation	112.6	108.6	111.2	124.0	141.9	161.4	759.7
Stations and Passenger Facilities	190.5	274.2	235.8	240.0	254.3	229.8	1,424.5
Bus and Paratransit	211.1	150.2	205.4	228.0	231.3	243.9	1,270.0
Business Support	81.5	52.4	51.3	49.9	50.4	50.8	336.3
<b>Total Capital Programs</b>	<b>1,250.0</b>	<b>1,278.6</b>	<b>1,273.8</b>	<b>1,327.1</b>	<b>1,024.0</b>	<b>1,029.5</b>	<b>7,183.0</b>

## CIP Multiyear Investments

<i>(Dollars in Millions)</i>	FY2018 Plan	FY2019 Plan	FY2020 Plan	FY2021 Plan	FY2022 Plan	FY2023 Plan	6 Year Total
Railcar Acquisition	347.1	377.2	360.9	398.4	36.7	47.3	1,567.5
Railcar Maintenance/Overhaul	138.0	116.3	109.5	110.1	109.9	114.1	698.0
Railcar Maintenance Facilities	42.7	29.0	33.0	39.8	60.6	63.9	269.0
<b>Railcar Investments</b>	<b>527.8</b>	<b>522.5</b>	<b>503.4</b>	<b>548.3</b>	<b>207.2</b>	<b>225.3</b>	<b>2,534.5</b>
Propulsion	38.7	58.1	53.8	55.1	50.7	50.6	307.0
Signals & Communications	87.9	112.6	112.8	81.8	88.1	67.8	551.0
<b>Rail Systems Investments</b>	<b>126.6</b>	<b>170.7</b>	<b>166.7</b>	<b>136.9</b>	<b>138.8</b>	<b>118.3</b>	<b>858.0</b>
Fixed Rail	99.0	90.6	89.6	92.7	92.8	95.2	559.9
Structures	13.6	18.0	21.6	31.3	49.2	66.1	199.8
<b>Track and Structures Rehabilitation Investments</b>	<b>112.6</b>	<b>108.6</b>	<b>111.2</b>	<b>124.0</b>	<b>141.9</b>	<b>161.4</b>	<b>759.7</b>
Platforms & Structures	83.3	74.3	78.5	114.3	139.3	150.8	640.5
Vertical Transportation	60.5	63.6	59.9	59.2	47.1	32.7	323.0
Station Systems	46.7	136.2	97.4	66.4	67.8	46.4	461.0
<b>Stations and Passenger Facilities Investments</b>	<b>190.5</b>	<b>274.2</b>	<b>235.8</b>	<b>240.0</b>	<b>254.3</b>	<b>229.8</b>	<b>1,424.5</b>
Bus & Paratransit Acquisition	77.8	27.9	104.1	133.4	133.2	140.1	616.5
Bus Maintenance/Overhaul	67.3	72.3	68.5	68.3	68.3	69.7	414.5
Bus Maintenance Facilities	58.4	48.4	31.8	25.3	28.9	33.1	226.0
Bus Passenger Facilities/Systems	7.6	1.6	1.0	1.0	0.9	1.0	13.0
<b>Bus and Paratransit Investments</b>	<b>211.1</b>	<b>150.2</b>	<b>205.4</b>	<b>228.0</b>	<b>231.3</b>	<b>243.9</b>	<b>1,270.0</b>
IT	57.2	40.3	41.1	40.0	40.5	41.4	260.5
MTPD	1.0	0.4	0.4	0.4	0.4	0.4	3.0
Support Equipment/Services	23.3	11.7	9.8	9.5	9.5	9.0	72.8
<b>Business Support Investments</b>	<b>81.5</b>	<b>52.4</b>	<b>51.3</b>	<b>49.9</b>	<b>50.4</b>	<b>50.8</b>	<b>336.3</b>
<b>Total Capital Programs</b>	<b>1,250.0</b>	<b>1,278.6</b>	<b>1,273.8</b>	<b>1,327.1</b>	<b>1,024.0</b>	<b>1,029.5</b>	<b>7,183.0</b>

## Funding Sources

By the end of FY2017, nearly all previously awarded Federal grant funds, except for some small restricted competitive grants, will be fully utilized. The FY2018-2023 capital funding projection assumes that Federal Formula and PRIIA grant funding continues at current

levels. The increasing capital expenditure program therefore necessitates a significant increase in jurisdictional contributions, including a debt issuance, to fund the program, as shown below (in millions).

### FY2018-2023 Capital Improvement Program

<i>(Dollars in Millions)</i>	FY2018 Plan	FY2019 Plan	FY2020 Plan	FY2021 Plan	FY2022 Plan	FY2023 Plan	6 Year Total
<b>Federal</b>							
Federal Formula Programs	\$301.1	\$302.7	\$302.7	\$302.7	\$302.7	\$302.7	\$1,814.4
Federal PRIIA	148.5	148.5	148.5	148.5	148.5	148.5	891.0
Other Federal Grants	10.8	9.5	7.2	7.8	8.0	8.3	51.6
<b>Subtotal Federal</b>	<b>460.5</b>	<b>460.7</b>	<b>458.4</b>	<b>458.9</b>	<b>459.2</b>	<b>459.5</b>	<b>2,757.1</b>
Match to Federal Formula	75.5	76.3	76.0	77.4	75.8	75.9	456.9
System Performance	135.0	344.8	421.8	419.0	293.7	269.8	1,884.0
State and Local PRIIA	148.5	148.5	148.5	148.5	148.5	148.5	891.0
Other State and Local	15.3	4.5	3.9	4.0	4.1	4.2	36.0
<b>Subtotal State and Local</b>	<b>374.4</b>	<b>574.0</b>	<b>650.1</b>	<b>649.0</b>	<b>522.1</b>	<b>498.3</b>	<b>3,267.9</b>
MWAA	118.2	33.2	32.2	69.2	35.2	5.0	293.0
Other	6.0	8.0	1.0	0.0	0.0	0.0	15.0
Long-Term Financing	291.0	202.7	132.1	150.0	7.5	66.7	850.0
<b>Total</b>	<b>1,250.0</b>	<b>1,278.6</b>	<b>1,273.8</b>	<b>1,327.1</b>	<b>1,024.0</b>	<b>1,029.5</b>	<b>7,183.0</b>
Financing Authorized in Prior Years	284.2	0.0	0.0	0.0	0.0	0.0	284.2
<b>Grand Total</b>	<b>1,534.2</b>	<b>1,278.6</b>	<b>1,273.8</b>	<b>1,327.1</b>	<b>1,024.0</b>	<b>1,029.5</b>	<b>7,467.2</b>

## Federal Programs

Metro expects to receive approximately \$313 million from Federal formula grants and other smaller discretionary grant programs, as well as \$148.5 million from the Passenger Rail Investment and Improvement Act (PRIIA). The formula and discretionary grants generally require a 20 percent local match, while the PRIIA funds require a 50 percent match, so the total required match to federal grants in FY2018 will be approximately \$226 million.

The six-year funding plan assumes that Federal grant funding will continue to be appropriated by Congress at a level consistent with Federal Fiscal Year 2016, amounting to a total of \$2.76 billion over six years. The funding plan also assumes that PRIIA funding, which is currently set to expire after Federal fiscal year 2019 (WMATA FY2020) will be reauthorized or replaced at its current annual funding level.

## State & Local Programs

In addition to providing the required match to Federal grants, Metro's funding jurisdictions also contribute unmatched capital funds (referred to as system performance funds) and participate in Metro's long-term debt issuances. The FY2018 capital budget includes \$801 million in total state and local investment and debt.

Beginning in FY2018, management is including locally requested and funded investments, formerly referred to as "reimbursable projects" within the appropriate capital program. Integrating these investments into the overall program will improve awareness and oversight but will have no impact on regional funding requirements, as the projects are fully funded by the sponsoring entity. Current active jurisdictional projects include the Silver Line extension and the associated expansion railcars (MWAA), Potomac Yard station (Alexandria), King Street Bus Loop (Alexandria), support for the Purple Line (Maryland), and the jurisdictional project development program.

## Financial Plan - Allocation of State &amp; Local Contributions

<i>(Dollars in Millions)</i>	FY2018 Plan	FY2019 Plan	FY2020 Plan	FY2021 Plan	FY2022 Plan	FY2023 Plan	6 Year Total
<b>Federal Formula Match &amp; System Performance</b>							
<b>District of Columbia</b>	<b>76.1</b>	<b>152.2</b>	<b>179.9</b>	<b>179.4</b>	<b>133.5</b>	<b>124.9</b>	<b>845.9</b>
Montgomery County	37.1	74.1	87.6	87.4	65.0	60.8	412.0
Prince George's County	36.1	72.1	85.3	85.0	63.3	59.2	400.9
<b>Maryland Subtotal</b>	<b>73.1</b>	<b>146.2</b>	<b>172.9</b>	<b>172.4</b>	<b>128.3</b>	<b>120.0</b>	<b>813.0</b>
City of Alexandria	9.8	19.6	23.2	23.1	17.2	16.1	109.0
Arlington County	18.6	37.2	44.0	43.8	32.6	30.5	206.7
City of Fairfax	0.6	1.2	1.4	1.4	1.0	1.0	6.5
Fairfax County	31.8	63.6	75.1	74.9	55.8	52.2	353.4
City of Falls Church	0.6	1.2	1.4	1.4	1.0	0.9	6.4
<b>Virginia Subtotal</b>	<b>61.3</b>	<b>122.7</b>	<b>145.0</b>	<b>144.6</b>	<b>107.7</b>	<b>100.7</b>	<b>682.0</b>
<b>Subtotal Federal Formula Match &amp; System Performance</b>	<b>210.5</b>	<b>421.1</b>	<b>497.7</b>	<b>496.4</b>	<b>369.5</b>	<b>345.7</b>	<b>2,340.9</b>
<b>State and Local PRIIA</b>							
District of Columbia	49.5	49.5	49.5	49.5	49.5	49.5	297.0
State of Maryland	49.5	49.5	49.5	49.5	49.5	49.5	297.0
Commonwealth of Virginia	49.5	49.5	49.5	49.5	49.5	49.5	297.0
<b>Subtotal State and Local PRIIA</b>	<b>148.5</b>	<b>148.5</b>	<b>148.5</b>	<b>148.5</b>	<b>148.5</b>	<b>148.5</b>	<b>891.0</b>
<b>Other State and Local</b>							
District of Columbia	1.0	1.0	1.0	1.0	1.0	1.0	6.0
Montgomery County	-	-	-	-	-	-	-
Prince George's County	-	-	-	-	-	-	-
State of Maryland	5.0	1.0	1.0	1.0	1.0	1.0	10.0
<b>Maryland Subtotal</b>	<b>5.0</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>10.0</b>
DRPT (CMAQ Match)	1.4	1.5	0.9	1.0	1.1	1.2	7.1
City of Alexandria	6.8	0.2	0.2	0.2	0.2	0.2	7.6
Arlington County	0.3	0.3	0.3	0.3	0.3	0.3	1.7
City of Fairfax	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fairfax County	0.5	0.5	0.5	0.5	0.5	0.5	3.2
City of Falls Church	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Commonwealth of Virginia	-	-	-	-	-	-	-
<b>Virginia Subtotal</b>	<b>9.0</b>	<b>2.5</b>	<b>1.9</b>	<b>2.0</b>	<b>2.1</b>	<b>2.2</b>	<b>19.7</b>
<b>Total Other State and Local</b>	<b>15.0</b>	<b>4.5</b>	<b>3.9</b>	<b>4.0</b>	<b>4.1</b>	<b>4.2</b>	<b>35.7</b>
<b>Total Contributions before Debt</b>	<b>374.4</b>	<b>574.4</b>	<b>650.1</b>	<b>649.0</b>	<b>522.1</b>	<b>498.3</b>	<b>3,267.9</b>
<b>Additional Contribution or Debt</b>							
<b>District of Columbia</b>	<b>211.4</b>	<b>73.2</b>	<b>47.7</b>	<b>54.2</b>	<b>2.7</b>	<b>24.1</b>	<b>413.4</b>
Montgomery County	100.1	35.7	23.3	26.4	1.3	11.7	198.5
Prince George's County	101.1	34.7	22.6	25.7	1.3	11.4	196.8
<b>Maryland Subtotal</b>	<b>201.1</b>	<b>70.4</b>	<b>45.9</b>	<b>52.1</b>	<b>2.6</b>	<b>23.2</b>	<b>395.3</b>
City of Alexandria	24.6	9.4	6.2	7.0	0.4	3.1	50.6
Arlington County	49.3	17.9	11.7	13.2	0.7	5.9	98.7
City of Fairfax	1.5	0.6	0.4	0.4	0.0	0.2	3.1
Fairfax County	85.5	30.6	19.9	22.6	1.1	10.1	169.9
City of Falls Church	1.8	0.6	0.4	0.4	0.0	0.2	3.3
Commonwealth of Virginia	-	-	-	-	-	-	-
<b>Virginia Subtotal</b>	<b>162.7</b>	<b>59.1</b>	<b>38.5</b>	<b>43.7</b>	<b>2.2</b>	<b>19.4</b>	<b>325.6</b>
<b>Total Debt (Opt Out)</b>	<b>575.2</b>	<b>202.7</b>	<b>132.1</b>	<b>150.0</b>	<b>7.5</b>	<b>66.7</b>	<b>1,134.2</b>
<b>Grand Total State and Local</b>	<b>949.6</b>	<b>776.7</b>	<b>782.2</b>	<b>799.0</b>	<b>529.6</b>	<b>565.0</b>	<b>4,402.2</b>

## Financial Plan - FY2017 &amp; FY2018 Allocation of State &amp; Local Contributions

(Dollars in Millions)	FY2017 Actual					FY2018 Approved				
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total
<b>Federal Formula Match &amp; System Performance</b>										
<b>District of Columbia</b>	\$19.7	\$15.5	\$17.6	\$17.6	\$70.4	\$20.9	\$16.5	\$18.7	\$18.7	\$74.8
Montgomery County	\$9.0	\$7.1	\$8.1	\$8.1	\$32.3	\$10.6	\$8.4	\$9.5	\$9.5	\$38.0
Prince George's County	\$9.4	\$7.4	\$8.4	\$8.4	\$33.6	\$10.1	\$7.9	\$9.0	\$9.0	\$35.9
<b>Maryland Subtotal</b>	<b>\$18.4</b>	<b>\$14.5</b>	<b>\$16.5</b>	<b>\$16.5</b>	<b>\$65.9</b>	<b>\$20.7</b>	<b>\$16.3</b>	<b>\$18.5</b>	<b>\$18.5</b>	<b>\$73.9</b>
City of Alexandria	\$2.4	\$1.9	\$2.1	\$2.1	\$8.5	\$2.7	\$2.1	\$2.4	\$2.4	\$9.7
Arlington County	\$4.4	\$3.5	\$4.0	\$4.0	\$15.8	\$5.2	\$4.1	\$4.6	\$4.6	\$18.4
City of Fairfax	\$0.1	\$0.1	\$0.1	\$0.1	\$0.5	\$0.2	\$0.1	\$0.2	\$0.2	\$0.6
Fairfax County	\$7.8	\$6.1	\$6.9	\$6.9	\$27.8	\$9.1	\$7.1	\$8.1	\$8.1	\$32.4
City of Falls Church	\$0.2	\$0.1	\$0.1	\$0.1	\$0.6	\$0.2	\$0.2	\$0.2	\$0.2	\$0.7
Commonwealth of Virginia	—	—	—	—	—	—	—	—	—	—
<b>Virginia Subtotal</b>	<b>\$14.9</b>	<b>\$11.7</b>	<b>\$13.3</b>	<b>\$13.3</b>	<b>\$53.2</b>	<b>\$17.3</b>	<b>\$13.6</b>	<b>\$15.4</b>	<b>\$15.4</b>	<b>\$61.8</b>
<b>Subtotal Formula Match &amp; System Performance</b>	<b>\$53.0</b>	<b>\$41.7</b>	<b>\$47.4</b>	<b>\$47.4</b>	<b>\$189.5</b>	<b>\$59.0</b>	<b>\$46.4</b>	<b>\$52.7</b>	<b>\$52.7</b>	<b>\$210.9</b>
<b>State and Local PRIIA</b>										
District of Columbia	\$16.3	\$13.4	\$9.9	\$9.9	\$49.5	\$16.3	\$13.4	\$9.9	\$9.9	\$49.5
State of Maryland	\$16.3	\$13.4	\$9.9	\$9.9	\$49.5	\$16.3	\$13.4	\$9.9	\$9.9	\$49.5
Commonwealth of Virginia	\$16.3	\$13.4	\$9.9	\$9.9	\$49.5	\$16.3	\$13.4	\$9.9	\$9.9	\$49.5
<b>Subtotal State and Local PRIIA</b>	<b>\$49.0</b>	<b>\$40.1</b>	<b>\$29.7</b>	<b>\$29.7</b>	<b>\$148.5</b>	<b>\$49.0</b>	<b>\$40.1</b>	<b>\$29.7</b>	<b>\$29.7</b>	<b>\$148.5</b>
<b>CMAQ Match</b>										
Commonwealth of Virginia (DRPT)	—	—	\$0.1	\$0.1	\$0.2	\$0.7	\$0.7	—	—	\$1.4
<b>Subtotal CMAQ Match</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.1</b>	<b>\$0.1</b>	<b>\$0.2</b>	<b>\$0.7</b>	<b>\$0.7</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$1.4</b>
<b>King Street Bus Loop (Alexandria)</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.3</b>	<b>\$0.3</b>	<b>\$0.3</b>	<b>\$0.3</b>	<b>\$1.3</b>
<b>Potomac Yards (Alexandria)</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$1.3</b>	<b>\$1.3</b>	<b>\$1.3</b>	<b>\$1.3</b>	<b>\$5.3</b>
<b>Purple Line (Maryland)</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$1.0</b>	<b>\$1.0</b>	<b>\$1.0</b>	<b>\$1.0</b>	<b>\$4.0</b>
<b>Project Planning</b>										
District of Columbia	—	—	—	—	—	\$0.2	\$0.2	\$0.2	\$0.2	\$1.0
State of Maryland	—	—	—	—	—	\$0.2	\$0.2	\$0.2	\$0.2	\$1.0
Commonwealth of Virginia (NVTA)	—	—	—	—	—	\$0.2	\$0.2	\$0.2	\$0.2	\$1.0
<b>Subtotal Project Planning</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.7</b>	<b>\$0.7</b>	<b>\$0.7</b>	<b>\$0.7</b>	<b>\$2.9</b>
<b>Total</b>	<b>\$102.1</b>	<b>\$81.8</b>	<b>\$77.1</b>	<b>\$77.2</b>	<b>\$338.1</b>	<b>\$112.0</b>	<b>\$90.6</b>	<b>\$85.8</b>	<b>\$85.8</b>	<b>\$374.4</b>

## Appendix A - Capital Improvement Program

**Program:** Railcar Acquisition

**Category:** Railcar Investments

### Program Description

Metro operates and maintains a fleet of over 1,200 railcars. New railcars are acquired to replace the oldest and least reliable vehicles, as well as to expand the fleet to support rail line extensions and ridership capacity needs. This program consists of projects that procure and prepare these new railcars for service.



Approved Budget (in 000s)	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	Total
Major Active Capital Projects	\$347,089	\$263,985	\$17,673	\$106,530	\$23,864	\$33,590	\$792,731
Development & Evaluation	0	1,000	2,000	4,000	5,000	5,000	17,000
Future Major Projects	0	112,210	341,248	287,846	7,799	8,666	757,769
<b>Budget Total</b>	<b>\$347,089</b>	<b>\$377,195</b>	<b>\$360,921</b>	<b>\$398,376</b>	<b>\$36,663</b>	<b>\$47,256</b>	<b>\$1,567,500</b>

Major Active Capital Projects		
Project (FY2018 - 2023)	Objectives	Cost (in 000s)
7000 Series Railcar Procurement	Acquisition of 7000 Series Railcars	792,731

The Major Active Capital Project in this program is currently focused on the procurement of the 7000 series railcars to replace the oldest and least reliable vehicles and expand the fleet for the Silver Line extension to Dulles Airport and Loudoun County. Metro currently has a contract to procure 748 new 7000 series railcars, through which 592 railcars will be replaced, including the 1000, 4000, and 5000 series fleets. All of the 1000 and 4000 series cars are expected to be removed from service by June 30, 2017. The remaining 156 vehicles are being used to expand the size of the fleet – 64 of these have been delivered to support the expansion of the Silver Line, and 64 more Silver Line expansion vehicles are planned for delivery through FY2018. An additional 28 vehicles are planned for delivery to further expand the fleet and add passenger capacity.

**Major Active Capital Projects (cont.)**

Current Major Active Capital Projects in this program will include the following:

**Railcar Procurement**

Metro advanced the rate of delivery and acceptance of the new 7000 series railcars to 20 per month in FY2017, and now expects to have completed conditional acceptance of 364 railcars by the start of FY2018.

In FY2018, Metro expects to receive approximately 224 new 7000 series cars. All 748 of the 7000 series railcars are expected to be delivered by March, 2019.

This project also includes the costs associated with retiring and disposing of the oldest and least reliable railcars.



<b>Project Schedule</b>	Start: FY2005 – End: FY2024
<b>Total Project Cost</b>	\$1,708,883
<b>Expense thru FY 2016</b>	\$451,091
<b>Projection for FY 2017</b>	\$338,824
<b>Remaining Cost (FY2018 thru Completion)</b>	\$918,968

**Development & Evaluation**

Through the development and evaluation process, Metro will consider alternatives for future railcar acquisition, including the need for the replacement of the 2000 and 3000 series railcars.

**Future Major Projects**

This program also includes provisional funding of \$757.7 million for the initiation of future projects that progress beyond the Development & Evaluation phase.

**Program: Railcar Maintenance & Overhaul****Category: Railcar Investments****Program Description**

This program includes railcar preventive maintenance, railcar rehabilitation and railcar safety and reliability improvements. Approximately 260 vehicles are rehabilitated annually to replace railcar components – such as wheels, brake systems, traction motors, doors, etc. – before the end of their useful life is reached. The regular inspection and maintenance of the entire railcar fleet ensures that component defects are repaired, performance issues are remedied, and that railcars are safe and reliable.



Approved Budget (in 000s)	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	Total
Safety & State of Good Repair	\$137,945	\$116,247	\$109,069	\$109,492	\$109,244	\$113,402	\$695,400
Development & Evaluation	100	100	400	600	700	700	2,600
<b>Budget Total</b>	<b>\$138,045</b>	<b>\$116,347</b>	<b>\$109,469</b>	<b>\$110,092</b>	<b>\$109,944</b>	<b>\$114,102</b>	<b>\$698,000</b>

**Safety, State of Good Repair & Minor Projects**

Element ( FY2018 - 2023 )	Quantity	Cost (in 000s)
Rehab Railcars	260 cars annually	\$428,886
Preventive Maintenance	1,300 cars annually	219,702
Safety & Reliability Enhancements	1,300 cars annually	46,812
<b>Total</b>		<b>\$695,400</b>

Metro's "Back2Good" initiative includes an enhanced, multi-faceted "Get Well" plan for railcars that will significantly reduce passenger off-loads and service delays.

Metro will complete state of good repair efforts and component rehabilitations on the legacy fleet – 2000, 3000, 5000, and 6000 series cars – including propulsion systems, pneumatic brakes, air supply train-line synchronization, precision stop, door improvements for the 2000/3000/6000 series cars, HVAC upgrades on the 5000 series cars, and the replacement of carpeting on all 6000 series cars with resilient flooring.

**Development & Evaluation**

Development & Evaluation funding of \$2.6 million will provide for the analysis of potential future needs to develop capabilities in the maintenance and rehabilitation of the 7000, 8000 and future series railcars and to keep pace with changing technology.

**Program:** Railcar Maintenance Facilities**Category:** Railcar Investments**Program Description**

The Railcar Maintenance Facilities program repairs, rehabilitates and replaces equipment and buildings at rail yards and other railcar maintenance facilities. Metro rehabilitates these facilities to provide a safe and modern work environments, with reliable equipment, to enable personnel to safely perform work and limit operational disruptions.



Approved Budget (in 000s)	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	Total
Safety & State of Good Repair	\$7,630	\$9,157	\$2,880	\$2,896	\$2,892	\$2,957	\$28,413
Major Active Capital Projects	31,059	11,046	0	0	0	0	42,105
Development & Evaluation	3,980	3,617	3,691	3,701	3,699	3,562	22,251
Future Major Projects	0	5,144	26,391	33,237	54,029	57,429	176,230
<b>Budget Total</b>	<b>\$42,669</b>	<b>\$28,966</b>	<b>\$32,963</b>	<b>\$39,834</b>	<b>\$60,620</b>	<b>\$63,949</b>	<b>\$269,000</b>

**Safety, State of Good Repair & Minor Projects**

Element ( FY2018 - 2023 )	Quantity	Cost (in 000s)
Elevated platform locations	4	\$17,217
CCTV Enhancements	10	11,197
<b>Total</b>		<b>\$28,413</b>

During the six year period, Safety, State of Good Repair & Minor Projects within the Railcar Maintenance Facilities program will focus on making alterations to maintenance facilities, such as elevated platforms to enable Metro staff to more safely and efficiently access and work on the 7000 series and future modern railcars.

The program will also address the installation and configuration of security equipment to ensure safety and protection for employees and assets at railcar maintenance facilities.



**Major Active Capital Projects**

Project (FY2018 - 2023)	Objectives	Cost (in 000s)
Railyard Facility Repairs	Rehabilitation and improvements to rail yards	37,505
Relocation of Maintenance Departments from Rail Yards	Relocation of five departments to a new facility.	4,600

Active major projects in this program will include extensive rehabilitation, repairs and improvements to facilities at rail yards, such as the Alexandria Administrative Building, Alexandria Service & Inspection (S&I) Shop, the Brentwood S&I shop and the Brentwood yard exterior.

Metro is also building out and relocating parts of five departments to the new facility at Good Luck Road and other locations.

**Rail Yard Facility Repairs**

Metro is rehabilitating the Alexandria, Brentwood and New Carrollton Rail yards, which were put into service between 1976 and 1983. The scope of work varies across the facilities, and rehabilitation work will include all systems and infrastructure to increase overall efficiency. Safety hazard corrections and emergency rehabilitation work at other rail yards will also be done as needed.

This project includes the rehabilitation and replacement of various rail maintenance facilities and equipment in order to provide a reliable, safe and modernized work environment and to enhance the capability of maintenance personnel to service the railcar fleet. The work conducted includes, but is not limited to, rehabilitation of railcar lifts, lighting system improvements, Hazmat storage upgrades, and the replacement of switch gears.

With work complete at New Carrollton yard, work in FY2018 will focus on the completion of the Track & Structures Maintenance building and the Service & Inspection Shop at Alexandria – both of which are expected to be near completion by the end of the fiscal year.

The power, lighting, sprinkler, an ventilation system upgrades at Brentwood Service & Inspection Shop are also expected to be complete, and the rehabilitation of railcar lifts will take place at West Falls Church and Shady Grove East.



<b>Project Schedule</b>	Start: FY2010 – End: FY2019
<b>Total Project Cost</b>	\$122,764
<b>Expense thru FY 2016</b>	\$56,179
<b>Projection for FY 2017</b>	\$29,079
<b>Remaining Cost (FY2018 thru Completion)</b>	\$37,505

**Relocation of Maintenance Departments from Rail Yards**

This project administers the purchase of a new facility at Good Luck Road, the design and construction to upgrade and repair the building, and the relocation of maintenance departments displaced by rail yard projects – those that are not required to be located in an active yard – to the facility (or to other locations as space allows).

In FY2018, Metro plans to have completed the building repairs and upgrades at Good Luck, along with the relocation of maintenance and other functions that will occupy the facility.

<b>Project Schedule</b>	Start: FY2016 – End: FY2019
<b>Total Project Cost</b>	\$19,288
<b>Expense thru FY 2016</b>	\$13,675
<b>Projection for FY 2017</b>	\$1,013
<b>Remaining Cost (FY2018 thru Completion)</b>	\$4,600



**Development & Evaluation**

This program includes \$22.3 million for Development & Evaluation, which will be used to conduct assessments of long-term capital investment opportunities, such as the expansion of Metro's nine rail yards and increases to the capacity of the facility network to store and service modern railcars. Metro will also be considering alternatives for a new heavy repair and overhaul facility that would improve the efficiency and effectiveness of these functions and free up capacity at existing rail yards for additional railcars and more routine maintenance activities.

**Future Major Projects**

This program also includes provisional funding of \$176.2 million for the initiation of future projects that progress beyond the Development & Evaluation phase.

**Program: Propulsion****Category: Rail Systems Investments****Program Description**

The Propulsion program includes ongoing rehabilitation and improvement efforts critical to the safety and performance of the electrical system that powers Metrorail trains. The assets that make up this system include power substations, transformers, cabling, alternating current (AC) and direct current (DC) switchgears, insulators, and feeders/breakers. In order to prevent electrical hazards and optimize the performance and reliability of trains, Metro must repair, rehabilitate, and upgrade these assets when required due to age and/or condition.



Approved Budget (in 000s)	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	Total
Safety & State of Good Repair	\$21,400	\$25,089	\$23,093	\$20,059	\$25,748	\$23,916	\$139,306
Major Active Capital Projects	17,300	31,696	29,455	17,389	0	0	95,840
Development & Evaluation	0	1,282	1,282	2,008	2,008	2,008	8,589
Future Major Projects	0	0	0	15,669	22,965	24,632	63,265
<b>Budget Total</b>	<b>\$38,700</b>	<b>\$58,067</b>	<b>\$53,830</b>	<b>\$55,125</b>	<b>\$50,722</b>	<b>\$50,556</b>	<b>\$307,000</b>

Safety, State of Good Repair & Minor Projects		
Element ( FY2018 - 2023 )	Quantity	Cost (in 000s)
Tie-Breaker Stations	4	\$7,600
Traction Power Substations	7	56,571
Cabling	180,000 feet	41,282
AC Switchgear Design	20	1,800
Uninterruptible Power Supplies	25	2,418
AC Switchgear Room Rehabs	12	18,719
AC Facility Rehabs	6	400
Microprocessor Relays at TPSS	84	1,684
Power Meters at TPSS	24	916
Transformers	15	5,605
AC/DC Gear Studies		2,311
<b>Total</b>		<b>\$139,306</b>

**Safety, State of Good Repair & Minor Projects**

This program will address electrical equipment throughout the system, including the rehabilitation of three additional Tie-Breaker Station (TBS) locations and five Traction Power Substations (TPSS).

A dedicated program to address the state of good repair of AC power systems began in FY2017. Two room rehabilitations will be completed per year – first on the Red Line with equipment already in Metro's possession. Designs for future locations across the system are in development. Metro's existing equipment inventory will be installed by FY2020. Installations in FY2021 and beyond are expected to continue indefinitely to support safety, reliability, and state of good repair.

Power cable will be installed at a rate of approximately 30,000 feet per year, out of 3.7 million linear feet powering the Metrorail system.

Studies to determine the safest approach to the coordination between the alternating current and direct current power systems are underway.

**Major Active Capital Projects**

Project (FY2018 - 2023)	Objectives	Cost (in 000s)
Rail Systems Upgrades	System-wide traction power upgrades	95,840

Current power upgrades will improve the condition of all traction power components and support the operation of eight-car trains, increasing system capacity for customers and reducing crowding during peak hours. Cable upgrades will be completed at a rate of approximately 30,000 feet per year,

This effort to run eight-car trains will also involve replacing existing equipment throughout the system, which would otherwise have been replaced or rehabilitated as part of a state of good repair initiative. In FY2018, Major Active Capital Projects in this program will include the following:

**Rail Power System Upgrades**

Metro's traction-power system is undergoing extensive improvements to increase power supply capacity and provide the infrastructure for the expanded use of eight-car trains. The increase from six to eight cars increases the power requirements of each train as well as the burden on the traction-power system.

In FY2018, Metro plans to complete work on two Traction Power Substation locations along with six Tie Breaker Stations. A new contract will also be issued for seven Tie Breaker Stations and six more Traction Power Substation locations.



<b>Project Schedule</b>	Start: FY2013 - End: FY2024
<b>Total Project Cost</b>	\$342,276
<b>Expense thru FY 2016</b>	\$51,572
<b>Projection for FY 2017</b>	\$12,666
<b>Remaining Cost (FY2018 thru Completion)</b>	\$278,037

**Development & Evaluation**

Metro has allocated \$8.6 million to Development & Evaluation in this program and will plan the necessary upgrades for the operation of eight-car trains system-wide. This will include the evaluation of alternatives for upgrades to the power-system on the Red Line.

**Future Major Projects**

This program also includes provisional funding of \$63.3 million for the initiation of future projects that progress beyond the Development & Evaluation phase.

**Program: Signals & Communications****Category: Rail Systems Investments****Program Description**

The Signals & Communications program supports the ongoing rehabilitation of and upgrades to systems that locate and direct Metrorail trains, wireless systems used by Metro employees, safety personnel, and first responders, and wireless communication systems for cellular access in tunnels and underground stations. Metro's automatic train control system is made up of components that work together to guide trains. These include track circuits, modules, non-vital processors, switch machines, cabling, junction boxes, and other associated equipment. Signaling technology includes lighting and warning systems that alert workers and operators as to the location of other trains and personnel to prevent incidents and accidents. Metro regularly inspects and repairs these assets, while making upgrades to the technology to improve accuracy and safety.



Approved Budget (in 000s)	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	Total
Safety & State of Good Repair	\$36,646	\$35,961	\$27,837	\$26,328	\$30,563	\$35,980	\$193,315
Major Active Capital Projects	49,261	74,670	77,947	42,281	41,495	11,001	296,655
Development & Evaluation	1,961	1,989	2,078	1,989	1,989	1,989	11,996
Future Major Projects	0	0	4,982	11,163	14,074	18,815	49,035
<b>Budget Total</b>	<b>\$87,868</b>	<b>\$112,620</b>	<b>\$112,845</b>	<b>\$81,761</b>	<b>\$88,121</b>	<b>\$67,785</b>	<b>\$551,000</b>

Safety, State of Good Repair & Minor Projects		
Element ( FY2018 - 2023 )	Quantity	Cost (in 000s)
Generation 3 Track Circuits	10	\$25,000
AF800 Track Circuits	13	30,000
Switch Machines	108	12,000
Yard Switch Machines	184	9,967
Yard Rehabs	2	33,833
Train Control Power Supplies	60	7,100
Interlocking Power Supplies	85	6,100
Cabling	184,600 feet	37,703
Pneumatic Control Boxes for Fans	1	6,087
Information System Management	3	4,394
Rail Joint Bonding	1166	2,800
Future Safety Requirements		18,331
<b>Total</b>		<b>\$193,315</b>

**Safety, State of Good Repair & Minor Projects**

Throughout the six-year period, Generation 3 Automatic Train Control (ATC) track circuit replacements will be completed.

Metro's 108 mainline switch machines and the 184 yard switch machines will be rehabilitated or replaced. Metro has a goal of renewing 78,000 linear feet of ATC cable per year. New technologies are currently under evaluation to improve efficiency and help achieve this rate. Cable meggering will take place at a rate of eight per week.

Metro will also complete several FTA Safety Management Inspection recommendations including the installation of pneumatic control boxes to synchronize vent fans to ensure the proper direction of air flow during ventilation.

**Major Active Capital Projects**

Project (FY2018 - 2023)	Objectives	Cost (in 000s)
Radio Infrastructure Replacement	Replacement of existing Metro radio system, and cellular wiring.	294,968
Track Inspector Location Awareness	Development of a bi-directional warning system for trains and track inspectors.	1,686

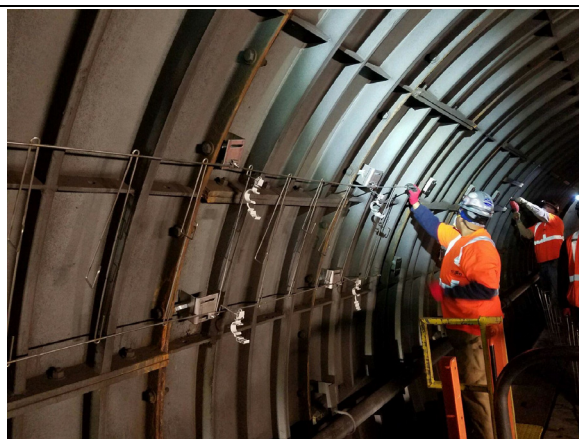
Metro will complete the replacement of the existing Comprehensive Radio Communications System (CRCS) during the six-year period, with a new system operating in the 700MHz band, as required by the Federal Communications Commission (FCC), while maintaining the current CRCS in working order until the frequencies are secured and replaced. Improved warning systems to alert train operators, track inspectors, and other wayside workers will also be put in place. In FY2018, Major Active Capital Projects in this program will include the following:

**Radio Infrastructure Replacement and Wireless System**

This project will replace the existing WMATA Comprehensive Radio Communications System (CRCS). The system is critical for communication among Metro and other public safety personnel. At the same time, this project will establish service for wireless customers in underground tunnels and stations, create an above ground antenna network, and provide new radios for bus, rail and MTPD. The CRCS currently operates in a 450-490 MHz frequency band (also referred to as T-Band), while the new system will be operating in a 700 MHz band. This upgrade will meet the Federal Communications Commission (FCC) T-Band relocation requirement.

In FY2018, Metro plans to complete segments between Metro Center to Potomac Avenue, Benning Road and Largo, Gallery Place and College Park, and Union Station to DuPont Circle.

In addition, Metro plans to have sites chosen and permits signed for above ground towers at 30 – 40% of 28 locations, with construction beginning on one or more. The installation of radios will begin in the fourth quarter, as well, at a rate of two per day on railcars, and nine per day on buses.



<b>Project Schedule</b>	Start: FY2016 - End: FY2023
<b>Total Project Cost</b>	\$327,128
<b>Expense thru FY 2016</b>	\$10,691
<b>Projection for FY 2017</b>	\$21,468
<b>Remaining Cost (FY2018 thru Completion)</b>	\$294,968

**Major Active Capital Projects (cont.)****Track Inspector Location Awareness**

Metro will develop pilot technology to evaluate track inspector location awareness systems and enhance transit worker protection. 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 will initially deploy the technology to blind spot locations and dangerous curves and will measure effectiveness against established performance criteria to ensure that the location of track inspectors is known at all times (when they are on the Right of Way) and that transit workers are protected in the event of approaching trains. The results of these evaluations will determine whether the technology is the best approach for system-wide deployment.



<b>Project Schedule</b>	Start: FY2018 - End: FY2023
<b>Total Project Cost</b>	\$1,686
<b>Expense thru FY 2016</b>	\$0
<b>Projection for FY 2017</b>	\$0
<b>Remaining Cost (FY2018 thru Completion)</b>	\$1,686

**Development & Evaluation**

This program includes \$12 million for the evaluation, testing, and development of new technology, cabling operations, and advancements in overall system design that will maintain the state of good repair of the ATC program and generate a substantial increase in repair and improvement rates.

**Future Major Projects**

This program also includes provisional funding of \$49 million for the initiation of future projects that progress beyond the Development & Evaluation phase.

**Program: Fixed Rail****Category: Track & Structures Investments****Program Description**

Metro operates six lines and 117 miles of track. The Fixed Rail program comprises the inspection, rehabilitation, and renewal of assets throughout the track infrastructure to maintain a state of good repair. Investments in this program are focused on replacing critical rail components – such as crossties, fasteners, switches, insulators, open joints, signage, and grout pads – cleaning hazardous debris from the track bed, tamping track, and replacing signage.

The program also provides for the timely repair or replacement of heavy track equipment to ensure equipment reliability and worker safety. These efforts reduce the probability of delays due to equipment breakdowns and allow for efficient use of track outages.



Approved Budget (in 000s)	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	Total
Safety & State of Good Repair	\$98,999	\$90,398	\$88,914	\$91,779	\$91,783	\$94,249	\$556,123
Development & Evaluation	0	200	700	900	1,000	1,000	3,800
<b>Budget Total</b>	<b>\$98,999</b>	<b>\$90,598</b>	<b>\$89,614</b>	<b>\$92,679</b>	<b>\$92,783</b>	<b>\$95,249</b>	<b>\$559,923</b>

Safety, State of Good Repair & Minor Projects		
Element ( FY2018 - 2023 )	Quantity	Cost (in 000s)
Crossties	61,600	\$110,730
DF Fasteners	112,000	134,733
Insulators	39,200	46,075
Track Tamping	200 (miles)	6,117
Switches	34	41,820
Running Rail	70 (miles)	115,493
Open Joints	5,600	28,246
Rail Track Signage	1,400	1,425
Grout pads	9 (miles)	26,325
26 Ton Crane Truck	1	293
Prime Movers	3	7,036
e-Clip Machine	2	300
120 Ton Mobile Crane	1	900
Emergency Construction		4,992
General Engineering Services		16,638
Tunnel Lighting	24,000 Fixtures; 48,000 lamps	15,000
<b>Total</b>		<b>\$556,123</b>

**Safety, State of Good Repair & Minor Projects**

With the conclusion of the FY2017 SafeTrack initiative, Metro will have reduced the backlog of deferred maintenance and significantly improved asset and right-of-way conditions in SafeTrack surge areas. In FY2018, SafeTrack will transition to a sustained preventive maintenance and capital rehabilitation program. There will be on-going, scheduled efforts 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.

Consulting and Engineering services are engaged on an annual basis to perform studies, surveys, and design efforts that aide in the rehabilitation, safety and reliable operation of the rail system.

Metro will also acquire various track maintenance equipment – such as prime movers, train trucks, and e-Clip machines – over the next six years. This will ensure equipment reliability, reduce the probability of delays due to equipment breakdowns, and allow for efficient use of track outages.

**Development & Evaluation**

This program includes \$3.8 million for the Development & Evaluation of potential projects, technologies or procedural changes, which could enhance the program outcomes.

**Program: Structures****Category: Track & Structures Investments****Program Description**

The Structures program rehabilitates structural components including elevated platforms, bridges, and retaining walls. Metro conducts inspections and critical engineering assessments to prevent the loss of use of one of these structures, which could affect entire rail line segments. This program also includes investments to prevent, mitigate and repair water intrusion into the underground system.



Approved Budget (in 000s)	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	Total
Safety & State of Good Repair	\$7,011	\$6,835	\$6,624	\$6,279	\$6,358	\$6,458	\$39,566
Major Active Capital Projects	4,200	5,506	0	0	0	0	9,706
Development & Evaluation	2,371	5,680	7,000	5,000	5,000	5,000	30,051
Future Major Projects	0	0	8,000	20,000	37,803	54,657	120,460
<b>Budget Total</b>	<b>\$13,582</b>	<b>\$18,022</b>	<b>\$21,624</b>	<b>\$31,279</b>	<b>\$49,161</b>	<b>\$66,115</b>	<b>\$199,783</b>

**Safety, State of Good Repair & Minor Projects**

Element ( FY2018 - 2023 )	Quantity	Cost (in 000s)
Underground Tunnel Water Remediation	74 miles	\$39,055
Farragut North Beam	1	511
<b>Total</b>		<b>\$39,566</b>

These investments restore and maintain the integrity of support structures, tunnel liners, eliminate leaks and stray currents, and prevent corrosion of equipment and track components. This will prevent unsafe conditions for Metrorail passengers and service delays resulting from water intrusion.

**Major Active Capital Projects**

Project (FY2018 - 2023)	Objectives	Cost (in 000s)
Bush Hill Aerial Structure Rehabilitation	Rehabilitate the aerial structure at Bush Hill	9,706

Critical structures throughout the system are also enhanced or significant reinforced through this program. In FY2018, Major Active Capital Projects in this program will include the following:

**Major Active Capital Projects (cont.)****Bush Hill Aerial Structure Rehabilitation**

This project will rehabilitate the Bush Hill Bridge in order to maintain structural integrity. This bridge was originally constructed in the late 1990's and has been identified for rehabilitation through an annual inspection. The Bush Hill Bridge is located on the Blue line. This project will repair the post tension defects in the bridge structure in order to maintain safe operations as identified in inspections.

Construction on the Bush Hill Bridge is expected to begin in FY2018.

<b>Project Schedule</b>	Start: FY2015 - End: FY2020
<b>Total Project Cost</b>	\$10,396
<b>Expense thru FY 2016</b>	\$381
<b>Projection for FY 2017</b>	\$308
<b>Remaining Cost (FY2018 thru Completion)</b>	\$9,706

**Development & Evaluation**

Future bridge structure rehabilitation needs have been identified, including the aerial structure at Grosvenor-Strathmore on the Red Line and the aerial structure on the Orange, Blue and Silver Lines near Stadium Armory. Metro has included \$30 million for the development & evaluation of specific needs related to the rehabilitation of these and other aerial structures.

**Future Major Projects**

This program also includes funding of \$120.5 million for the initiation of future projects that progress beyond the Development & Evaluation phase and into design and construction.

**Program: Platforms & Structures****Category: Stations & Passenger Facilities Investments****Program Description**

The Platforms & Structures program includes construction, rehabilitation, or replacement of stations, platforms, pedestrian facilities, parking facilities, canopies, and other large scale structural work.

In order to ensure safe conditions for all Metro passengers and employees, Metro inspects and repairs these assets to prevent and mitigate negative effects, such as water intrusion, age, corrosion and surface damage from elements.



Approved Budget (in 000s)	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	Total
Safety & State of Good Repair	\$20,244	\$24,909	\$24,631	\$32,139	\$32,096	\$33,027	\$167,046
Major Active Capital Projects	58,418	46,872	39,406	46,186	38,247	12,019	241,148
Development & Evaluation	4,600	2,436	6,500	5,000	5,000	5,000	28,536
Future Major Projects	0	50	8,000	31,000	64,000	100,620	203,670
<b>Budget Total</b>	<b>\$83,262</b>	<b>\$74,268</b>	<b>\$78,537</b>	<b>\$114,325</b>	<b>\$139,343</b>	<b>\$150,666</b>	<b>\$640,401</b>

Safety, State of Good Repair & Minor Projects		
Element ( FY2018 - 2023 )	Quantity	Cost (in 000s)
Station Rehabilitation	144	\$67,876
Bicycle & Pedestrian	12	7,027
Rhode Island Ave. Platform	1	2,144
Rehab Parking Garages	11 locations	36,602
Design rehab and resurface	32 locations	9,054
Garage Rebuild	1 location	32,546
Resurface parking lots	15 locations	11,797
<b>Total</b>		<b>\$167,046</b>

Bicycle parking capacity will be increased at Metrorail stations, and connections for bicycles and pedestrians between stations and local communities will be improved and made more accessible.

Station rehabilitation will provide safer and brighter stations and improve the customer experience. Rehabilitation is planned for the following locations: Shady Grove North, Franconia-Springfield East, Grosvenor and College Park, Minnesota Ave, Glenmont (West), Rhode Island Ave, West Falls Church, Largo Town Center, White Flint and New Carrollton.

Metro plans to rebuild the parking garage at Huntington Station. The current, deteriorating structure is beyond its useful life.

Parking lots will be resurfaced at 15 locations, and designs for rehabilitation and resurfacing will be developed for 32 locations to be completed within the FY2018-2023 period.

Construction to repair concrete structures at the Rhode Island Ave. station will be completed.



Major Active Capital Projects		
Project (FY2018 - 2023)	Objectives	Cost (in 000s)
Orange-Blue Line Rehab	Rehabilitate stations, power, and systems	40,541
Purple Line Construction	Coordinate construction and integration efforts of Purple Line stations	4,093
Silver Line Extension	Construction support & Project management	144,850
Potomac Yard Station	Design and engineering of new station	5,337
Station Entrance Canopies	Install canopies over exposed escalators to protect riders and escalators from weather	46,327

This program will continue ongoing, multi-year improvement efforts on various structures and systems – including kiosks, platforms, fan systems, traction power, canopies, ceiling work, and support of major new construction.

In FY2018, Major Active Capital Projects in this program will include the following:

#### Orange & Blue Line Rehabilitation (Stage One)

This project is a comprehensive rehabilitation of the Orange and Blue Lines that will focus on rebuilding systems and infrastructure to extend the useful life and improve the reliability of the Metro system.

In FY2018, Metro plans to complete work on the four remaining Traction Power Substation locations, and one remaining AC room location.

Lighting and ceiling tiles will also be replaced at eight station locations during the fiscal year before commencing the closeout of the project.



<b>Project Schedule</b>	Start: FY2011 - End: FY2018
<b>Total Project Cost</b>	\$410,908
<b>Expense thru FY 2016</b>	\$310,837
<b>Projection for FY 2017</b>	\$59,530
<b>Remaining Cost (FY2018 thru Completion)</b>	\$40,541

#### Development of the Purple Line (Maryland)

The Purple Line is a planned 16-mile light rail transit line extending from Bethesda (in Montgomery County) to New Carrollton (in Prince George's County). The Maryland Transit Administration (MTA), is managing the development of the line, which will connect four Metrorail station locations – Bethesda, Silver Spring, College Park, and New Carrollton.

Metro has established a reimbursable project for initial design and engineering support needed to plan for and manage the impacts of the Purple Line on Metro facilities.

In FY2018, planning and initial design will continue in coordination with MTA.

<b>Project Schedule</b>	Start: FY2011 - End: FY2023
<b>Total Project Cost</b>	\$6,039
<b>Expense thru FY 2016</b>	\$1,208
<b>Projection for FY 2017</b>	\$737
<b>Remaining Cost (FY2018 thru Completion)</b>	\$4,093



**Major Active Capital Projects (cont.)****Construction Support Silver Line Phases I & II**

Metro will provide engineering, safety assurance and design review support to the Metropolitan Washington Airports Authority (MWAA) in the development of the Silver Line extension infrastructure. Metro will assist MWAA in ensuring that critical infrastructure has been constructed to specifications and will provide support in safety inspections.

<b>Project Schedule</b>	Start: FY2010 – End: FY2023
<b>Total Project Cost</b>	\$270,315
<b>Expense thru FY 2016</b>	\$118,505
<b>Projection for FY 2017</b>	\$6,960
<b>Remaining Cost (FY2018 thru Completion)</b>	\$144,850

**Potomac Yard Station (Alexandria, VA)**

The City of Alexandria is sponsoring the construction of a new Metrorail station – Potomac Yard – between Ronald Reagan National Airport and Braddock Road.

Metro is supporting contracting, design, development and construction throughout the project, and has issued an RFP for bid on the contract.

<b>Project Schedule</b>	Start: FY2011 - End: FY2023
<b>Total Project Cost</b>	\$9,753
<b>Expense thru FY 2016</b>	\$1,247
<b>Projection for FY 2017</b>	\$3,169
<b>Remaining Cost (FY2018 thru Completion)</b>	\$5,337

**Station Entrance Canopies**

This project provides for the installation of canopies over 11 stations with exposed escalators to protect both riders and escalators from weather. Canopies aid in maintaining the reliability and state of good repair of escalators.

In FY2018, Metro plans to complete canopies at Shady Grove, Huntington, Brookland, Deanwood, Metro Center and Judiciary Square, and construction will begin at Minnesota Avenue.

<b>Project Schedule</b>	Start: FY2016 - End: FY2018
<b>Total Project Cost</b>	\$54,632
<b>Expense thru FY 2016</b>	\$2,333
<b>Projection for FY 2017</b>	\$5,972
<b>Remaining Cost (FY2018 thru Completion)</b>	\$46,327



**Development & Evaluation**

This program includes \$28.5 million for the evaluation and development of projects to address the following identified needs: improvements to tunnel ventilation, mitigation of water intrusion throughout the Red Line tunnels, and access and circulation improvements at key core stations. The optimal solutions will focus on air flow in the event of smoke, preventing water from creating electrical hazards that could result in fires, and increasing safe core capacity and station circulation and accessibility.

Development and evaluation of projects to address these substantial and complex needs will result in refined approaches and detailed plans for large scale, multi-year capital projects (which will require additional funding beyond current projections).

**Future Major Projects**

This program also includes provisional funding of \$203.7 million for the initiation of projects that are determined, during the Development & Evaluation process, to decrease maintenance costs, extend the life of Metro assets, and increase service reliability and safety over the long-term.

**Program:** Vertical Transportation**Category:** Stations & Passenger Facilities Investments**Program Description**

The Vertical Transportation program supports the repair, rehabilitation and replacement of Metro's elevators and escalators to support safety, availability and reliability. Elevators are rehabilitated every 12 to 15 years and escalators are rehabilitated every 10 to 15 years. Metro determines which units are due for replacement by assessing both asset conditions and age. Metro maintains 278 elevators, which are replaced after an average of 35 years, and 618 escalators, which require replacement after 25 to 30 years.



Approved Budget (in 000s)	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	Total
Safety & State of Good Repair	\$25,002	\$26,760	\$25,178	\$24,321	\$24,732	\$25,939	\$151,932
Major Active Capital Projects	35,498	36,777	34,297	34,395	21,874	5,227	168,068
Development & Evaluation	0	100	400	500	500	1,500	3,000
<b>Budget Total</b>	<b>\$60,500</b>	<b>\$63,637</b>	<b>\$59,875</b>	<b>\$59,216</b>	<b>\$47,105</b>	<b>\$32,666</b>	<b>\$323,000</b>

**Safety, State of Good Repair & Minor Projects**

Element ( FY2018 - 2023 )	Quantity	Cost (in 000s)
Elevator Rehabs	61	\$42,960
Escalator Rehabs	105	72,442
Break Boards	70	2,203
Reducer Refurbishments	174	6,995
Step Assembly	837	7,553
Steps	13,946	19,779
<b>Total</b>		<b>\$151,932</b>

The oldest and poorest performing elevators and escalators will be rehabilitated or replaced.

Escalator components will be replaced or refurbished – 100 brake boards, 250 reducers, 1,200 step assemblies, and 20,000 steps (which includes step molds to build out additional step replacements).

96 elevators are planned for rehabilitation, 75 escalators will undergo rehabilitation, and 90 escalators will be replaced over the six year period.

**Major Active Capital Projects**

Project (FY2018 - 2023)	Objectives	Cost (in 000s)
Escalator Replacement	Replace oldest and poorest performing escalators	168,068

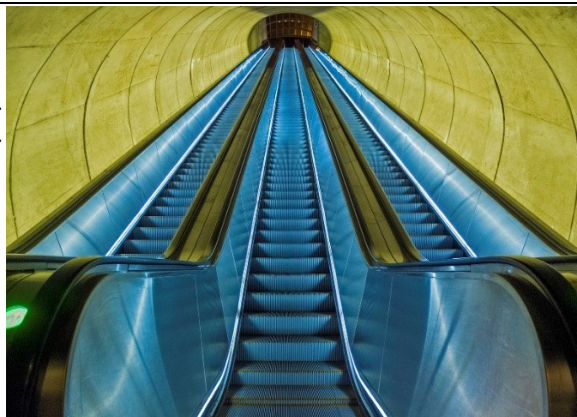
The Vertical Transportation program includes the replacement of existing elevator and escalator assets. In FY2018, Major Active Capital Projects in this program will include the following:

## Major Active Capital Projects (cont.)

### Escalator Replacement

Metro will replace the oldest and poorest performing escalators in the system to maintain escalator safety, availability and reliability. The new escalators will be equipped with more energy efficient devices and capabilities. This project will result in the replacement of approximately 128 escalators at 34 stations over a ten year period. Of the originally planned replacements under this project, 14 will now be done as major rehabilitations.

In FY2018, Metro plans to complete 14 escalator replacements at Eastern Market, U Street, Cleveland Park, Stadium-Armory, Friendship Heights, Smithsonian, Naylor Road, Medical Center, Suitland, Congress Heights, New York Avenue, Courthouse, and Judiciary Square stations.



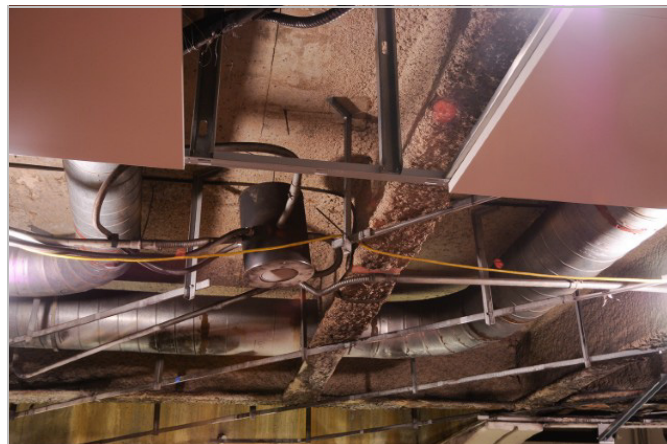
<b>Project Schedule</b>	Start: FY2015 - End: FY2023
<b>Total Project Cost</b>	\$260,252
<b>Expense thru FY 2016</b>	\$61,301
<b>Projection for FY 2017</b>	\$30,883
<b>Remaining Cost (FY2018 thru Completion)</b>	\$168,068

### Development & Evaluation

This program includes \$3 million for the evaluation and development of new technologies, approaches and activities to improve rehabilitation and replacement efforts for Vertical Transportation.

**Program: Station Systems****Category: Stations & Passenger Facilities Investments****Program Description**

The Station Systems program maintains and improves the safety, accessibility, and efficient operation of stations and their support systems. Assets that fall within this program include fire warning and protection systems, drainage systems, vents and cooling systems, lighting, and fare collection systems. Metro advances the safety, comfort and convenience of stations through the ongoing repair and improvement of the infrastructure, hardware, software, and mechanics that allow these systems to properly function.



Approved Budget (in 000s)	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	Total
Safety & State of Good Repair	\$18,339	\$19,636	\$17,686	\$17,787	\$19,419	\$15,782	\$108,648
Major Active Capital Projects	28,392	116,511	79,186	47,859	47,518	29,886	349,351
Development & Evaluation	0	100	500	800	900	700	3,000
<b>Budget Total</b>	<b>\$46,731</b>	<b>\$136,246</b>	<b>\$97,372</b>	<b>\$66,446</b>	<b>\$67,837</b>	<b>\$46,368</b>	<b>\$461,000</b>

Safety, State of Good Repair & Minor Projects		
Element ( FY2018 - 2023 )	Quantity	Cost (in 000s)
Station Lighting	20	\$37,328
Passageway Lighting	32	8,800
Fire System Upgrades at Shop Facilities	5	18,867
Cooling system (chillers, Freon detectors, under platform duct replacement, and cooling towers)	30	43,653
<b>Total</b>		<b>\$108,648</b>

Metro will continue to upgrade lighting throughout stations in the system, including the track bed, platforms, under mezzanines, and passageways. This will enhance brightness and visibility and improve accessibility.

Sprinklers, standpipes, and alarm systems will be upgraded as part of the Fire Systems state of good repair effort, and station cooling systems will undergo rehabilitation based on condition and priority.



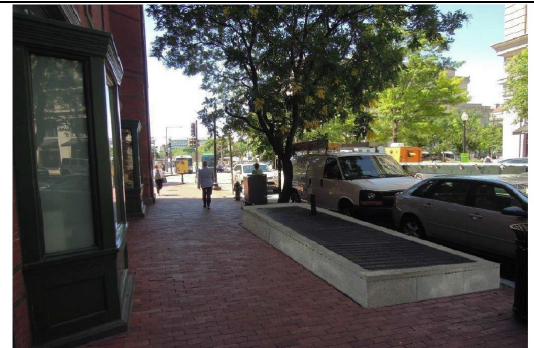
Major Active Capital Projects		
Project (FY2018 - 2023)	Objectives	Cost (in 000s)
Vent Shaft Elevation	Elevate vent shafts to protect the system core from water intrusion.	13,290
Drainage Improvements	Improve Drainage to support flood resiliency.	12,873
Fare Collection Upgrade	Modernize the fare collection system.	256,700
System-wide Fire Alarm Upgrade	Create a safe and compliant fire alarm system.	66,488

Future investment Metro will alter, upgrade and modernize a number of systems to reduce water intrusion, improve drainage, streamline fare collection, and enhance fire safety. In FY2018, Major Active Capital Projects in this program will include the following:

#### Raising Vent Shafts to Protect the System Core

This project will elevate vent shafts in low lying areas to protect stations from flood waters entering into the rail system. This project is funded by a Federal Resiliency Grant.

In FY2018, construction will be underway at Cleveland Park, McPherson Square, and Waterfront locations. Metro will also be presenting designs and plans to finalize regulatory clearance for all remaining sites.



<b>Project Schedule</b>	Start: FY2017 - End: FY2023
<b>Total Project Cost</b>	\$16,472
<b>Expense thru FY 2016</b>	\$1,288
<b>Projection for FY 2017</b>	\$1,894
<b>Remaining Cost (FY2018 thru Completion)</b>	\$13,290

#### Drainage Improvements

Metro will replace and improve drainage pumping stations to support flood resiliency improvements. This project will also replace and improve drainage pumping stations and sewage ejector systems, which have exceeded their lifecycle, throughout the Metrorail system. This project is funded by a Federal Resiliency grant.

In FY2018, work will take place at four locations along the Red Line.



<b>Project Schedule</b>	Start: FY2016 - End: FY2023
<b>Total Project Cost</b>	\$17,570
<b>Expense thru FY 2016</b>	\$1,190
<b>Projection for FY 2017</b>	\$3,507
<b>Remaining Cost (FY2018 thru Completion)</b>	\$12,873

#### Fare Collection Modernization

Metro will upgrade and replace the current Fare Collection System to provide a more seamless and efficient process for fare collection.

In FY2018, Metro will select a vendor and initiate the design phase of this project to develop the infrastructure that will support the new system.

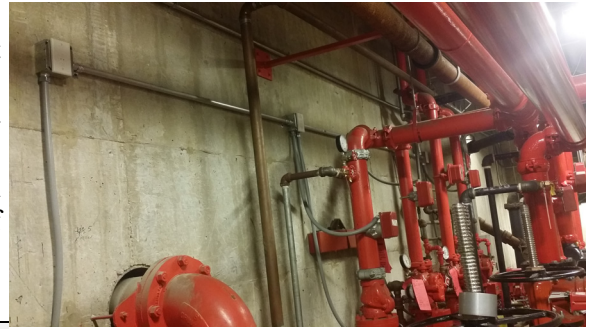
<b>Project Schedule</b>	Start: FY2016 - End: FY2023
<b>Total Project Cost</b>	\$259,851
<b>Expense thru FY 2016</b>	\$0
<b>Projection for FY 2017</b>	\$3,151
<b>Remaining Cost (FY2018 thru Completion)</b>	\$256,700



**Major Active Capital Projects (cont.)****Fire Alarm System Upgrade**

This system-wide fire alarm upgrade will address NTSB recommendations that require stations to be compliant with the latest version of NFPA 72 and 130. The replacement and upgrade of the fire alarm system throughout the rail system will improve overall safety and responsiveness to fire hazards.

In FY2018, Metro will complete the new sprinkler systems, issue a contract for 5 facilities, develop designs, and begin construction of Branch Avenue Station and the Carmen Turner Facility (CTF).



<b>Project Schedule</b>	Start: FY2017 - End: FY2023
<b>Total Project Cost</b>	\$66,760
<b>Expense thru FY 2016</b>	\$0
<b>Projection for FY 2017</b>	\$271
<b>Remaining Cost (FY2018 thru Completion)</b>	\$66,488

**Development & Evaluation**

Metro has included \$3 million for the analysis of systems in tunnels and stations and evaluation to determine the areas to be addressed and the proper approach for safety improvements or system upgrades in order to avoid component obsolescence.

**Program:** Bus & Paratransit Acquisition**Category:** Bus & Paratransit Investments**Program Description**

The Bus & Paratransit Acquisition program provides for the replacement of buses and paratransit vehicles at the end of their useful life. Annual bus acquisitions are timed to maintain an average fleet life of about 7.5 years for the fleet of approximately 1,600 buses.

Maintaining the fleet age at 7.5 years maximizes safety, service reliability and on-time performance. Additionally, a modern fleet improves the rider experience and customer satisfaction. The new, low-emission fleet also reduces Metro's environmental footprint.

Metro maintains a fleet of 675 paratransit vehicles with an average fleet age of four years.



Approved Budget (in 000s)	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	Total
Safety & State of Good Repair	\$77,770	\$27,768	\$103,931	\$133,238	\$133,058	\$139,985	\$615,750
Development & Evaluation	0	150	150	150	150	150	750
<b>Budget Total</b>	<b>\$77,770</b>	<b>\$27,918</b>	<b>\$104,081</b>	<b>\$133,388</b>	<b>\$133,208</b>	<b>\$140,135</b>	<b>\$616,500</b>

**Safety, State of Good Repair & Minor Projects**

Element ( FY2018 - 2023 )	Quantity	Cost (in 000s)
CNG Buses	250 buses	\$194,033
Hybrid Buses	211 buses	198,117
Clean Diesel Buses	117 buses	97,977
Articulated Buses	22 buses	35,437
Spare Parts	Spare parts (all fleets)	16,336
Vans, Cutaways and Autos	923 vans	73,850
<b>Total</b>		<b>\$615,750</b>

Metro will continue to invest in the replacement of older, higher emission buses with modern, low emission vehicles such as: CNGs, Hybrids and Clean Diesels.

The six year bus acquisition plan will replace 250 Compressed Natural Gas 40 foot coaches, 211 Hybrid Diesel 40 foot coaches, 117 Clean Diesel 40 foot coaches, and 22 Articulated 60 foot coaches.

Metro will acquire approximately 925 paratransit vans during the six year period.

FY2018 is the final option year of the current contract. A new procurement package will begin in FY2019.

**Development & Evaluation**

Metro has included \$0.75 million in this program for the Development & Evaluation of new bus and paratransit vehicle technology.

**Program: Bus Maintenance & Overhaul****Category: Bus & Paratransit Investments****Program Description**

The Bus Maintenance/Overhaul program supports a comprehensive, mid-life rehabilitation schedule for Metro's bus fleet, performed at approximately 7.5 years of age. Each year, about 100 buses out of Metro's approximately 1,600 vehicle fleet are overhauled. This program repairs, updates, maintains and rehabilitates mechanical, electrical and structural systems.

Annual investment in bus rehabilitation and overhaul maximizes the useful life of the assets, ensures the bus fleet remains in good condition, meets safety standards, and provides optimal performance, comfort, and reliability for Metro customers.



Approved Budget (in 000s)	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	Total
Safety & State of Good Repair	\$67,300	\$72,193	\$68,190	\$68,045	\$67,910	\$69,021	\$412,660
Development & Evaluation	0	100	300	300	400	700	1,800
<b>Budget Total</b>	<b>\$67,300</b>	<b>\$72,293</b>	<b>\$68,490</b>	<b>\$68,345</b>	<b>\$68,310</b>	<b>\$69,721</b>	<b>\$414,460</b>

Safety, State of Good Repair & Minor Projects		
Element ( FY2018 - 2023 )	Quantity	Cost (in 000s)
Rehab Buses	100 buses annually	\$300,594
Replace Repair Equipment	Replacement of various equipment	19,361
Replace Chassis Dynamometers	Replacement of two (2) Dynamometers	500
Replace Bus Lifts	Replace 25 lifts annually	600
CCTV Replacement	Replace Bus Cameras	17,205
Rebuild Engine Assy.	Annually 100 Engines	14,400
Rebuild Trans. Assy.	Annually 150 Trans.Assy	27,000
Replace DPIM Assy.	10 DPIMs annually	3,000
Replace ESS Assy.	100 ESS annually	30,000
<b>Total</b>		<b>\$412,660</b>

Annual investment supports the overhaul of about 100 buses at their mid-life (approximately 7.5 years). The replacement of engines, transmissions, axles, suspension and braking systems, is included in state of good repair investments.

These investments also sustain bus maintenance repair equipment and keep equipment up-to-date and ready to maintain the bus fleet.

This program also supports the replacement of components that can no longer be rebuilt, including but not limited to compressors, engines, and cooling systems.

The replacement of hybrid components – such as the dual power inverter module (DPIM) and the electronic storage system (ESS) – is also supported through this program.

**Development & Evaluation**

Metro has included \$1.8 million in this program for the Development & Evaluation of new maintenance and overhaul technologies or initiatives.

**Program:** Bus Maintenance Facilities**Category:** Bus & Paratransit Investments**Program Description**

The Bus Maintenance Facilities program ensures that Metro operates bus facilities in a safe, reliable and cost efficient manner. This includes investments in bus maintenance equipment and new bus garages. Metro operates nine bus garages that have a useful life between 50-60 years – before substantial reinvestment or replacement becomes necessary. Metro is making substantial investments to ensure all nine garages remain in a state of good repair either through replacement or major rehabilitation. Maintenance equipment must be regularly rehabilitated or replaced so that all buses are safely, efficiently, and effectively maintained and overhauled.



Approved Budget (in 000s)	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	Total
Safety & State of Good Repair	\$7,327	\$4,500	\$1,338	\$0	\$0	\$0	\$13,165
Major Active Capital Projects	48,966	30,163	11,832	0	0	0	90,961
Development & Evaluation	2,141	11,771	4,712	4,826	4,154	3,400	31,004
Future Major Projects	0	2,000	13,965	20,459	24,758	29,728	90,910
<b>Budget Total</b>	<b>\$58,434</b>	<b>\$48,434</b>	<b>\$31,846</b>	<b>\$25,286</b>	<b>\$28,912</b>	<b>\$33,128</b>	<b>\$226,040</b>

**Safety, State of Good Repair & Minor Projects**

Element ( FY2018 - 2023 )	Quantity	Cost (in 000s)
Bus Garage Rehabilitation	Multiple per location	\$13,165
	<b>Total</b>	<b>\$13,165</b>

Key elements of various bus facilities will be rehabilitated to ensure safety, functionality and reliability. From FY2018 to FY2023, this work will include the replacement, rehabilitation and monitoring of storage tank systems to ensure the safe storage of hazardous fluids; the installation of new fueling equipment; and the repair or replacement of other maintenance and overhaul equipment.

In FY2018, key elements of the Bladensburg Bus Facility will be rehabilitated to support safe operations during the transition period prior to the replacement of the facility. Additionally, the implementation of containment modifications will begin at fueling areas to prevent soil contamination and water run-off that might impact the surrounding environment.



Major Active Capital Projects		
Project (FY2018 - 2023)	Objectives	Cost (in 000s)
Andrews Federal	175 bus Capacity Garage and Major Overhaul Maintenance facility	86,461
Cinder Bed Road	160 bus Capacity Garage	4,500

Obsolete bus maintenance facilities will be replaced with safe, modern, and environmentally friendly facilities. These facilities will increase Metro's capacity to service and maintain a modern bus fleet, and will improve the economy and sustainability of bus maintenance operations.

In FY2018, Major Active Capital Projects in the Bus Maintenance Facilities program will include:

#### Andrews Federal Center Bus Facility (Replacement of the Southern Avenue Garage)

Metro is constructing a new facility at Andrews Federal Center, along with a heavy overhaul and maintenance facility. This facility will replace the Southern Avenue Bus Garage with a fully modern Leadership in Energy and Environmental Design (LEED) Silver facility that can hold 175 buses.

The Southern Avenue Bus Garage is over 90 years old, and unable to support or service a modern bus fleet. The new facility - Andrews Federal Center Bus Garage - has been designed to improve safety, efficiency, and capacity for servicing a modern bus fleet.

In FY2018, the mechanical room of the facility will be built out, along with the warehouse, service vehicle areas, the heavy rehabilitation & overhaul building, paint area, and fuel wash building.



<b>Project Schedule</b>	Start: FY2010 - End: FY2020
<b>Total Project Cost</b>	\$156,135
<b>Expense thru FY 2016</b>	\$39,597
<b>Projection for FY 2017</b>	\$30,077
<b>Remaining Cost (FY2018 thru Completion)</b>	\$86,461

#### Cinder Bed Road Bus Facility (Replacement of the Royal Street Garage)

Metro is constructing a modern facility at Cinder Bed Road that will replace the Royal Street Bus Garage with a fully modern Leadership in Energy and Environmental Design (LEED) Silver facility with a capacity of 160 buses.

The Royal Street Garage was over 70 years old, and the new facility at Cinder Bed Road will provide a modern and more sustainable replacement.

In FY2018, the installation of security, wireless and fare collection systems will take place. Building commissioning, substantial completion inspections, and LEED verification surveys will also be conducted. The new facility is expected to open in FY2018.



<b>Project Schedule</b>	Start: FY2008 - End: FY2018
<b>Total Project Cost</b>	\$61,911
<b>Expense thru FY 2016</b>	\$26,597
<b>Projection for FY 2017</b>	\$30,814
<b>Remaining Cost (FY2018 thru Completion)</b>	\$4,500

**Development & Evaluation**

Metro will allocate \$31 million for developing and evaluating alternatives for replacement of obsolete bus garages, potentially including Bladensburg, Northern, and Western bus garages.

**Future Major Projects**

Provisional funding of \$90.9 million is also included for the initiation of future projects that progress beyond the Development & Evaluation phase and into design and construction. Total project cost estimates will be developed before final design and site construction begin.

**Program:** Bus Passenger Facilities & Systems**Category:** Bus & Paratransit Investments**Program Description**

The Bus Passenger Facilities & Systems program supports a broad range of customer facility maintenance and improvements, bus investments, and project planning to improve service delivery, efficiency, accessibility, and the overall rider experience. Assets supported through this program include technology for reducing travel time, accessibility features at bus stops and stations, signage, and passenger information displays.



Approved Budget (in 000s)	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	Total
Safety & State of Good Repair	\$6,342	\$1,517	\$855	\$861	\$664	\$754	\$10,992
Major Active Capital Projects	1,258	0	0	0	0	0	1,258
Development & Evaluation	0	50	150	150	200	200	750
<b>Budget Total</b>	<b>\$7,600</b>	<b>\$1,567</b>	<b>\$1,005</b>	<b>\$1,011</b>	<b>\$864</b>	<b>\$954</b>	<b>\$13,000</b>

**Safety, State of Good Repair & Minor Projects**

Element ( FY2018 - 2023 )	Quantity	Cost (in 000s)
Bus Customer Facility Improvement	Annual renovations authority-wide	\$4,925
TSP Implementation	Develop TSP implementation on PCN	2,864
ADA Improvements	Complete 32 Bus stops	657
Bus Livability Improvements	Install 115 RTPI signs	659
Bus planning studies	Annual service delivery assessment	1,886
<b>Total</b>		<b>\$10,992</b>

Bus customer facilities are replaced or rebuilt, based on condition and priority. Improvements will enhance safety and accessibility and will improve the customer experience.

The Traffic Signal Prioritization (TSP) program will continue on Priority Corridor Network (PCN) bus lines to decrease route travel times, improve coverage and reduce crowding.

Metro will improve accessibility for customers with disabilities at 32 bus stops across the region.

Metro will also install 115 Wayfinding Real Time Passenger Information (RTPI) signs at bus stops and shelters across the region.



**Major Active Capital Projects**

Project (FY2018 - 2023)	Objectives	Cost (in 000s)
King Street Bus Loop	Begin reconfiguration	1,258

Major Active Capital Projects in this program will involve the planning, reconfiguration and construction of connections and access points for bus passengers and all modes of transportation that connect with the Metrobus network. In FY2018, Major Active Capital Projects in this program will include the following:

**King Street Bus Loop**

The City of Alexandria is funding construction to reconfigure and expand the bus loop at the King Street Metro Station, as part of a series of upgrades to parking and bus facilities at this location.

Metro will provide design and project management support services for the duration of the project. In FY2018, Metro will issue a contract and provide on-call design support for the first phase of the project.

<b>Project Schedule</b>	Start: FY2011 - End: FY2020
<b>Total Project Cost</b>	\$2,056
<b>Expense thru FY 2016</b>	\$580
<b>Projection for FY 2017</b>	\$217
<b>Remaining Cost (FY2018 thru Completion)</b>	\$1,258

**Development & Evaluation**

Metro has included \$0.75 million in this program for the Development & Evaluation of potential new projects related to the improvement of Bus Passenger Facilities & Systems.

**Program:** Information Technology**Category:** Business Support Investments**Program Description**

Metro's Information Technology requirements are addressed through this program. This includes the replacement, integration of, and upgrades to all data network infrastructure, software and hardware – from computers and servers to scheduling, maintenance, time keeping, and financial systems. Metro makes continuous investment in these systems to avoid obsolescence, ensure information security and systems reliability, and improve responsiveness to safety and service issues.



Approved Budget (in 000s)	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	Total
Safety & State of Good Repair	\$50,691	\$40,069	\$40,741	\$38,919	\$38,809	\$37,777	\$247,006
Major Active Capital Projects	6,500	0	0	0	0	0	6,500
Development & Evaluation	0	200	400	1,100	1,700	3,594	6,994
<b>Budget Total</b>	<b>\$57,191</b>	<b>\$40,269</b>	<b>\$41,141</b>	<b>\$40,019</b>	<b>\$40,509</b>	<b>\$41,371</b>	<b>\$260,500</b>

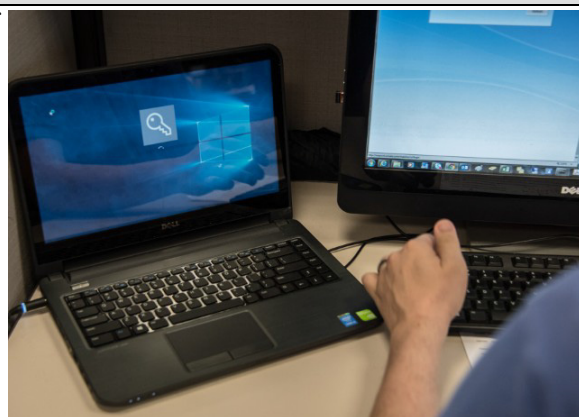
Safety, State of Good Repair & Minor Projects		
Element ( FY2018 - 2023 )	Quantity	Cost (in 000s)
Software Development & Maintenance	N/A	\$142,920
Network System Components (Severs, Uninterruptible Power Supply and Routers)	544	91,940
Computers	9,522	9,484
Safety Management System	N/A	2,662
<b>Total</b>		<b>\$247,006</b>

Essential IT infrastructure will be sustained through the development of software that supports the following business functions: Asset Management, Bus & Rail operations support, enterprise geographic information systems, sensitive data protection, police dispatch and records management, timekeeping, customer electronic communications and management support.

Computers, hardware assets and infrastructure will be replaced based on condition, age, and obsolescence.

Additionally, Metro will leverage Geographic Information System (GIS) technology to integrate real-time traffic data for bus operations.

The program will also further develop the automated and centralized safety management system to capture incident and safety information across the system and improve operations where there are opportunities or trends.



Major Active Capital Projects		
Project (FY2018 - 2023)	Objectives	Cost (in 000s)
Kronos Time Keeping System		6,500

The Information Technology program will include the development and roll-out of new systems that automate and standardize essential functions, creating efficiencies and cost savings through improved accuracy and tracking.

In FY2018, Major Active Capital Projects in this program will include the following:

#### Kronos Time Keeping System

Metro will configure and deploy a standardized time management solution to improve accuracy and economic efficiency in WMATA's time keeping. This system will integrate with Metro's current financial and resource management systems to automate the assignment of business, union, and other rules to their associated time reporting codes.

In FY2018, Metro will complete parallel system and user acceptance testing, train end-users, and deploy the system throughout the agency.



<b>Project Schedule</b>	Start: FY2014 - End: FY2018
<b>Total Project Cost</b>	\$15,400
<b>Expense thru FY 2016</b>	\$3,889
<b>Projection for FY 2017</b>	\$5,012
<b>Remaining Cost (FY2018 thru Completion)</b>	\$6,500

#### Development & Evaluation

The IT program includes \$7 million in funds for the Development & Evaluation of new information systems or integrations that could improve efficiency and effectiveness if implemented.

**Program:** Metro Transit Police Department**Category:** Business Support Investments**Program Description**

The Metro Transit Police Department (MTPD) has 490 sworn police officers, 64 security special police, and 91 civilian personnel. MTPD is supported with essential administrative, storage and training facilities, as well as new and replacement public safety and emergency management equipment through this capital program. Metro pursues Federal security grant funding for this program when it is available for these purposes.



Approved Budget (in 000s)	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	Total
Safety & State of Good Repair	\$1,000	\$437	\$333	\$326	\$325	\$349	\$2,770
Development & Evaluation	0	0	50	60	60	60	230
<b>Budget Total</b>	<b>\$1,000</b>	<b>\$437</b>	<b>\$383</b>	<b>\$386</b>	<b>\$385</b>	<b>\$409</b>	<b>\$3,000</b>

Safety, State of Good Repair & Minor Projects		
Element ( FY2018 - 2023 )	Quantity	Cost (in 000s)
Bullet Resistant safety vest	369	\$554
Non-Lethal	739	517
Chemical Sensor Replacement	5	323
Body Cameras	462	462
Training equipment update	N/A	724
Portable radio	27	190
<b>Total</b>		<b>\$2,770</b>

These investments support the MTPD in their mission to provide protection to Metro patrons, personnel, transit facilities and revenue.

Essential MTPD support equipment is purchased through this program. This includes, but is not limited to, bullet resistant safety vests, biological and chemical sensor devices, body cameras, portable radios, and police training equipment.

**Development & Evaluation**

Metro has included \$0.23 million for the evaluation and development of potential new initiatives in this program.

**Program:** Support Equipment & Services**Category:** Business Support Investments**Program Description**

The Support Equipment & Services program sustains Metro's key functions and core operations. Planning studies that improve capacity, enhance service delivery, reduce environmental impacts and optimize core operations are supported through the program. Additionally, non-revenue vehicles and equipment supporting Metro Transit Police Department, safety, operations and administrative functions are funded through the program, along with administrative facility needs, facility roofs, and system-wide environmental compliance programs.



Approved Budget (in 000s)	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	Total
Safety & State of Good Repair	\$23,261	\$11,716	\$9,772	\$9,483	\$9,470	\$8,963	\$72,664
Development & Evaluation	0	10	30	30	30	30	130
<b>Budget Total</b>	<b>\$23,261</b>	<b>\$11,726</b>	<b>\$9,802</b>	<b>\$9,513</b>	<b>\$9,500</b>	<b>\$8,993</b>	<b>\$72,794</b>

Safety, State of Good Repair & Minor Projects		
Element ( FY2018 - 2023 )	Quantity	Cost (in 000s)
Non-Revenue vehicles	Annual replacement	\$5,838
Fluid tank rehabilitations	Varies by location	7,490
Environmental Compliance program	Varies by location	5,341
Planning for Core Capacity Improvements	Varies by location	3,617
Transit Asset Management program	1	3,700
Storm Water Facility Improvements	Varies by location	5,869
Building Infrastructure & Systems Renewal program	Varies by location	2,060
Supply chain equipment (forklifts, man lifts, material transport equip., components and support infrastructures	15	548
Fueling Area Pollution Prevention	Varies by location	4,601
Roof Rehab/Replace	25	8,607
Borrowing Costs	Annual fees	3,046
Planning & Sustainability Pilot programs	1	3,946
Jurisdictional Project Planning	N/A	18,000
	<b>Total</b>	<b>\$72,664</b>

**Safety, State of Good Repair & Minor Projects**

Non-revenue vehicles and equipment used to support Metro's police, safety, operations, and administrative functions will be acquired. Scheduled replacement of administrative, MTPD and service vehicles ensures the fleet is in a state of good repair and that vehicles and equipment are safe and reliable.

Support equipment at facilities throughout the system will be replaced or rehabilitated in order to minimize risk, fines, and environmental compliance issues. This work includes, but is not limited to, transformer tanks, gas dispensers, oil tanks, tank sumps, diesel sumps, heating oil, and anti-freeze tanks.

Supply chain equipment that has reached the end of its useful life will be replaced.

Roofs on all types of Metro facilities will be rehabilitated or replaced. Metro has more than 610 facilities with roofs that require regular maintenance and rehabilitation.

Jurisdictional planning studies related to traffic mitigation, ridership impact and service delivery optimization will be conducted to improve transit operations.

Costs associated with short term borrowing to advance capital projects are also included in this program.

**Development & Evaluation**

Metro has included \$0.13 million for the evaluation and development of potential new initiatives in this program.

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## Appendix B - Sustainability

### Sustainable Transportation

Investments in sustainability are one of the key ways Metro can promote cost savings and responsible stewardship of the region's funding support.

Metro provides a transit network which creates opportunities for a compact and low-carbon region to prosper. By supporting transit-oriented development as the region grows, Metro contributes to economic growth, enhanced mobility and reduced greenhouse gas emissions by replacing automobile trips with efficient bus and rail trips, and reducing traffic congestion. Each vehicle commute Metro eliminates saves 67 kilograms of carbon dioxide equivalent emissions per week. Additionally, each year Metro riders help prevent the release of about 400,000 tons of carbon and 22 tons of particulates into the atmosphere, minimize regional storm water run-off by supporting compact development and save approximately 40 million gallons of fuel.

### Reinvesting to Meet Fiscal and Environmental Goals

Metro is at a critical point where significant improvements must be made to provide safe, effective and reliable service. Metro's plan of action focuses on three areas: increased safety and security, improved service reliability, and financial stability.

As Metro rebuilds the system, it is critical to invest wisely and demonstrate responsible stewardship of the region's subsidy. Metro is committed to incorporating sustainable practices as it rebuilds. Sustainability can result in long-term financial savings and the new railcars, buses, and facility improvements will help Metro lead the way.



### Energy Management and Sustainability at Metro

#### *Energy Management*

The FY2018 Budget for water and energy across all uses (i.e. facilities, traction power and fuel) is \$114 million.

- Implementation of plans that could execute a one percent reduction in overall water and energy costs could potentially save Metro over \$10 million over the next decade.
- Execution of a more aggressive target of five percent could yield a potential savings of over \$50 million in savings over the next decade.

In 2014, Metro adopted an energy reduction target of 15 percent per vehicle mile from 2013 levels by 2025. As of 2016, Metro has realized a three percent reduction in energy use per vehicle mile and associated avoided costs.

To continue along the path to reach these ambitious energy reduction targets, Metro has initiated an Authority-wide energy audit which will recommend investments, prioritized based on expected return. The report will provide concrete recommendations including integration into capital programming and asset management.

In addition, Metro is launching an Enterprise Energy Management system that will allow internal transparency, accountability and asset management of Metro's \$114 million water and energy budget. By incorporating the management of energy across the Authority as part of business, Metro will be able to reach our energy reduction targets and achieve associated cost savings.

#### *Sustainability Initiative*

Metro's Sustainability Initiative is designed to achieve financial and environmental goals while improving safety and reliability. The initiative set forward three regional and seven internal service efficiency targets to manage and attain by 2025. It also established the Sustainability Lab and Sustainability Awards to promote cost effective innovation and best practice adoption at the Authority.

Since its adoption in 2014, Metro's sustainability projects have included efficient passenger garage lighting, rail yard switch heaters, and building automation systems at key facilities. These projects have saved Metro nearly \$2.5 million annually while reducing use of utilities, upgrading equipment, and reducing labor requirements.

Programs like the Sustainability Lab allow the Authority's creative minds to show what is possible as Metro improves its system. Financially sound, environmentally-friendly projects are being submitted as improvements are made throughout the system. The Sustainability Lab has

implemented pilot projects related to the use of energy, water, and waste disposal that are expected to save the Authority an additional \$1.2 million in operating costs over the next five years and if rolled out agency-wide, could save over \$10 million annually. In 2018, the program will continue to invest in high-return initiatives that can bring down long-term operating costs.

Employees are critical to agency innovation and achieving Metro's Sustainability Initiative targets. Through its annual Sustainability Awards program, Metro recognizes and presents awards to staff for implementation of projects that create cost saving and/or sustainable business practices to the Authority.

Metro sustainability projects completed to date include:

- The addition of one battery-electric bus to the fleet for testing on selected routes in the region. Battery-electric drivetrain vehicles provide fuel and maintenance savings, while offering quieter, emissions-free bus operations.
- Stricter regulatory requirements from the Maryland Department of the Environment, as part of the Chesapeake Bay Restoration Act, triggered the need for Metro to construct a new water treatment building at the Largo pumping station. Metro's new state-of-the-art facility employs a combination of design elements that help Metro meet regulatory requirements, achieve its sustainability targets, and reduce operating costs.



- The Sustainability Lab funded pilot of new high efficiency switch heaters estimated to produce energy savings of \$135,000 annually and is now underway. Switch heaters provide switch protection in cold weather to enable switches to remain operational. If this pilot proves successful, Metro has 285 yard switches that could be converted.
- A new tub grinder, funded by the Sustainability Lab, is expected to save approximately \$50,000 annually. This project will divert approximately 4,000 cubic yards of compostable waste from Metro's waste stream and will recoup the initial investment in equipment within three to four years.



- An evaluation of Metro's solar generation potential and the potential to monetize this otherwise latent asset has been completed. Significant market ready on-site solar capacity has been identified on Metro property. However, many of the Authority's assets with solar capacity remain economically unfeasible. Metro continues to investigate opportunities for sourcing off-site economically beneficial renewable energy generation to achieve its 30 percent renewable target by 2025.
- In 2014, Metro achieved significant success with the initiation of the self-funding garage lighting efficiency contract. This contract provided for the installation and maintenance of new equipment which was funded through guaranteed energy savings. This demonstrates that Metro can successfully use the energy savings to finance infrastructure investments that radically improve customer experience. The lighting upgrades are complete at the passenger parking facilities and are projected to reduce energy use by over 70 percent.

## Appendix C - Board Budget Resolutions

**PRESENTED AND ADOPTED: March 23, 2017**

**SUBJECT: APPROVAL OF FISCAL YEAR 2018 OPERATING AND CAPITAL BUDGETS, PUBLIC HEARING STAFF REPORT, AND CHANGES IN FARES AND SERVICE; AUTHORIZE GENERAL MANAGER AND CHIEF EXECUTIVE OFFICER TO CREATE OPEB TRUST AND TO TAKE NECESSARY ACTIONS TO RECOVER FTA GRANT FUNDS**

**2017-11**

**RESOLUTION  
OF THE  
BOARD OF DIRECTORS  
OF THE  
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY**

WHEREAS, The Washington Metropolitan Area Transit Authority (WMATA) Board of Directors received and considered the General Manager/Chief Executive Officer's (GM/CEO) proposed Fiscal Year (FY) 2018 Operating Budget, and approved a docket of proposed fare increases and service changes for FY2018 for consideration at a public hearing; and

WHEREAS, The Board of Directors received and considered the GM/CEO's proposed FY2018-2023 Capital Improvement Program (CIP); and

WHEREAS, The Board of Directors conducted a public hearing on January 30, 2017, preceded by an open forum on the proposed operating budget, fare increases, and service changes; the results of which are summarized in the Staff Report (Attachment A); and

WHEREAS, The Board of Directors also sought comment at the public hearing on WMATA's proposed FY2018 CIP and Federal FY2017 Grant Applications, as required for recipients of Federal Transit Administration (FTA) grant funding, and those comments are also included in the attached Staff Report; and

WHEREAS, As required in WMATA's Board-approved Public Participation Plan (PPP), WMATA staff conducted additional public outreach to riders regarding the proposed fare increases and service changes at key locations throughout the WMATA transit system, and through community-based organizations, and conducted an online survey, with the results of these outreach efforts also summarized in the Staff Report; and

WHEREAS, In accordance with Title VI of the Civil Rights Act of 1964, FTA requirements, and Board-approved guidelines, WMATA staff conducted an equity analysis of the proposed fare and service changes and determined that the proposed changes will not impose a disparate impact on minority riders or a disproportionate burden on low-income riders; and

**Motioned by Mr. Goldman, seconded by Ms. Harley**

**Ayes: 8 – Mr. Evans, Ms. Harley, Mr. Corcoran, Mr. Strickland, Mr. Dormsjo, Mr. Goldman, Mrs. Hudgins and Ms. Carmody**

WHEREAS, It is anticipated that the Montgomery County Council will approve continued funding for the "Kids Ride Free" program to provide free Metrobus rides for Montgomery County students between 2:00 p.m. and 7:00 p.m. for the FY2018 budget; and

WHEREAS, It is anticipated that the District of Columbia will approve continued funding for the School Transit Subsidy Program (including the "Kids Ride Free" program for students on Metrobus and Metrorail), as well as continued funding for transfer discounts at Anacostia and Congress Heights stations; and

WHEREAS, Arlington County has requested increased peak period service on Metrobus Route 2A, with necessary funding provided by the Virginia Department of Transportation as part of the "Transform 66: Inside the Beltway" project; and

WHEREAS, Resolutions 2011-30 and 2016-24 have delegated specific capital reprogramming authority to the GM/CEO; and

WHEREAS, WMATA management expects that the initiatives to control absenteeism, Worker's Compensation costs, and overtime will result in cost savings and, therefore, as a prudent financial matter, these savings should be used to create an Other Post-Employment Benefits (OPEB) trust for the pre-funding of OPEB liabilities, including retiree health insurance; and

WHEREAS, FTA awarded WMATA a \$1.9 million Safety Research and Demonstration Program grant for the Track Inspector Location Awareness with Enhanced Track Worker Protection initiative which is now included in the updated CIP; and

WHEREAS, In the performance of prior year CIPs, WMATA has expended approximately \$280 million, including approximately \$85 million in Passenger Rail Investment and Improvement Act (PRIIA) grant expenses, for which reimbursement has proven difficult to obtain; and

WHEREAS, WMATA and FTA staff agree that the substitution of safety-focused expenses for the prior year unreimbursed expenses provides the easiest and surest way for WMATA to obtain these funds; now, therefore be it

*RESOLVED*, That the Board of Directors approves the Staff Report on the public hearing and outreach concerning the proposed CIP, Operating Budget, fare increases, and service changes; and be it further

*RESOLVED*, That the fare increases shown on Attachment B are approved and will be effective starting on or about July 1, 2017; and be it further

*RESOLVED*, That the service changes shown on Attachment C are approved and will be effective starting on or about July 1, 2017; and be it further

*RESOLVED*, That the Board of Directors approves the Title VI equity analysis included as Attachment D; and be it further

*RESOLVED*, That the headway on Metrobus Route 2A is changed from 15 minutes to 10 minutes during the morning and evening peak periods, with the net cost of this additional service included as part of Arlington County's non-regional bus subsidy; and be it further

*RESOLVED*, That the rail service standards approved in Resolution 2012-29 are amended such that maximum Rush Period headways shall be four minutes on core interlined segments and eight minutes on all other segments; and be it further

*RESOLVED*, That the Board of Directors directs staff to report on the progress of the initiatives to control absenteeism, Worker's Compensation costs, and overtime as part of the quarterly financial reports to the Board; and be it further

*RESOLVED*, That, subject to the existence of budget savings of at least \$3 million from initiatives to control absenteeism, Worker's Compensation costs, and overtime, the Board of Directors authorizes the GM/CEO to create an OPEB trust by the fourth quarter of FY2018 and to fund such trust at that time in an amount not to exceed \$3 million with future contributions to the trust to be reviewed as part of the FY2019 budget discussions; and be it further

*RESOLVED*, That the Board of Directors approves and adopts the FY2018 Operating Budget (inclusive of all Operating Reimbursable and Operating Reimbursable Safety and Security projects) of \$1.825 billion, with revenues, expenses and subsidies detailed in Attachments E and F; and be it further

*RESOLVED*, That \$21.2 million of debt service expenditures resulting from the issuance of Metro Matters bonds (Series 2009A and 2009B) are subsumed within the FY2018 budget and allocated to the jurisdictions as detailed in Attachment F; and be it further

*RESOLVED*, That the Board of Directors authorizes the GM/CEO to make such adjustments to the FY2017 and FY2018 Operating and Capital Budgets and to exceed the Board's limitation on the use of federal funds for preventive maintenance as are necessary to permit staff to obtain payment from the FTA for the grant funds currently deemed to be difficult to reimburse without regard to any limitations imposed by either Resolution 2011-30 or 2016-24 provided, however, that no such change shall result in an increase to any jurisdiction's subsidy payment for FY2017 or the scheduled subsidy for FY2018; and be it further

*RESOLVED*, That the Board of Directors approves and adopts the FY2018 Capital Budget of \$1.250 billion (inclusive of all Capital Reimbursable projects) and the six-year CIP for FY2018 through FY2023 of \$7.18 billion as summarized by investment category in Attachments G-1 through G-3; and be it further

*RESOLVED*, That the Board of Directors approves the use of FTA grant and local matching funds in the amount of \$60 million for eligible preventive maintenance expenditures through the capital budget in FY2018; and be it further

*RESOLVED*, That the capital reprogramming authority delegated to the GM/CEO in Resolutions 2011-30 and 2016-24 is hereby amended such that so long as the total adopted CIP Budget is not increased, the GM/CEO may reprogram budget authority among categories, programs, projects, or any other budget division to ensure that safety, reliability and state of good repair projects proceed without delay and to support the effective and efficient delivery of projects within the CIP; and be it further

*RESOLVED*, That Section 600 of Chapter 1 of WMATA's Procurement Policy is revised to delete the fourth bullet of Section 601.C relating to the GM/CEO's limited reprogramming authority; and be it further

*RESOLVED*, That the Board of Directors directs staff to report on significant changes to the budget implemented by the GM/CEO for the purposes of obtaining the delayed FTA reimbursements as well as any reprogramming actions that move budget authority between CIP investment categories as part of the quarterly financial reports to the Board; and be it further

*RESOLVED*, That in order to implement the elements of the FY2018 CIP, the GM/CEO, the Chief Financial Officer, or their designees are authorized to: (1) file and execute grant applications on behalf of WMATA for funds from the federal government and any other public or private entity consistent with the CIP; (2) conduct public hearings at any time during FY2018 in furtherance of the implementation of the FY2018-2023 CIP; and (3) execute and file the annual FTA Certifications and Assurances as a prerequisite to the submission of federal grant applications; and be it further

*RESOLVED*, That the Board of Directors acknowledges that, in accordance with the terms of the Capital Funding Agreement (CFA), if any projects are started during the term of the CFA or any bonds or other financial instruments are issued pursuant to the CFA, the Contributing Jurisdictions have agreed to continue to make their Allocated Contributions for those projects or debt service until the conclusion of the projects or the final maturity of the bonds or other financial instruments; and be it finally

*RESOLVED*, That to accelerate the receipt of the FTA grant funds, allow staff to timely apply for the coming fiscal year's grants and allow staff adequate time to prepare for the

implementation of fare and service adjustments, this Resolution shall be effective immediately.

Reviewed as to form and legal sufficiency,



Patricia Y. Lee  
General Counsel

WMATA File Structure Nos.:  
2.7 Delegation of Authority  
4.2.2 Fiscal Year Budgets  
9.12.9 Tariff (WMATA Fare Structure)



**Washington Metropolitan Area Transit Authority**  
***Public Outreach & Input Report***

**Docket B17-01: Proposed FY2018 Operating Budget**

**Docket B17-02: Proposed FY2018 Capital Improvement Program  
and Federal FY2017 Grant Applications**

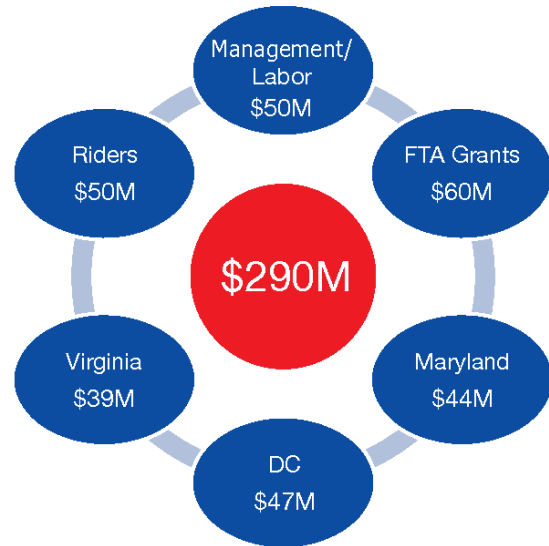
## INTRODUCTION

For Fiscal Year 2018, Metro General Manager Paul J. Wiedefeld proposed a \$3.1 billion budget that funds key safety, service and customer initiatives critical to reversing declining ridership and building a sustainable future for Metro. This “Reality Check” budget proposal identified a gap of \$290 million – larger than recent years due to growing expenses to operate and maintain the system, and declining ridership.

To fill the budget gap, Wiedefeld has proposed shared sacrifice between state and local governments, Metro personnel and customers. The proposal calls for the District, Maryland and Virginia to contribute a total of \$130 million more than they did last year. Metro is also proposing \$50 million in cost savings by eliminating positions and taking other cost cutting actions. Fares for riders would go up between \$0.10 and \$0.25 for rail and bus trips, while service is rightsized to fit current ridership levels.

Several key initiatives being considered include:

- Increase in Metrorail rush hour and non-rush hour fares
- Increase in regular and express Metrobus fares
- Replace 1-day rail pass with new 1-day unlimited rail/bus pass
- Adjust train service during weekday rush hour
- Reduce train service during non-rush hour and weekends
- Eliminate or modify bus routes in the District, Maryland and Virginia



All of the proposed changes, as well as the proposed capital improvement program budget, can be found in WMATA Dockets B17-01 and B17-02 at [wmata.com](http://wmata.com) under About > Public Hearings & Meetings.

This report includes an overview of the public participation plan that was followed, as well as a summary of the feedback received from the public from various information channels.

## COMMUNICATIONS & OUTREACH TO THE PUBLIC

In order to encourage public feedback on the proposals, as well as to fulfill the Board-approved Public Participation Plan, Metro tailored a communications and outreach plan. This intensive effort was necessary for reaching passengers and communities most impacted by the proposals; the historical model of numerous public hearings often missed impacted groups.

The majority of the communications and outreach effort concentrated on the public comment time period – Saturday, January 14 through Monday, February 6. The final plan included the following efforts:

- Outreach events at stations & bus stops
- Stakeholder communication
- Targeted marketing & media
- Open house & public hearing

In order to best manage resources in the allotted amount of time, the majority of outreach efforts focused on the proposed changes that would have the greatest impact on riders (high ridership, bus elimination, Title VI populations). A demographic overview of the impacted customers can be viewed in Part I of the Title VI equity analysis report.

Feedback was collected through the following sources:

- Paper surveys in English and Spanish at station/bus stop outreach events and station survey collection boxes
- Paper surveys in English and Spanish from the Open House/Public Hearing
- Online survey in English and Spanish
- Verbal public testimony at the Public Hearing



## Outreach Events at Stations & Bus Stops

Outreach street teams, comprised of Metro staff and contractors, traveled to various Metrorail stations and bus stops for a total of 49 shifts to collect feedback from riders on paper surveys and pass out brochures and fliers. Target stations aligned closely with jurisdictional station distribution – 39% District of Columbia, 35% Maryland and 27% Virginia, and locations were chosen based on high average weekday, low-income and minority ridership, parking utilization, proposed impacts to bus service and high rail-to-bus transfers.

Team members wore Metro aprons and those who were bilingual wore large pins that identified them as speaking another language. Half of all street teams were fluent in Spanish, and some teams also had Amharic, Chinese and Korean speakers. Many teams included staff from the Office of Bus Planning who could speak in detail about proposed bus service changes.

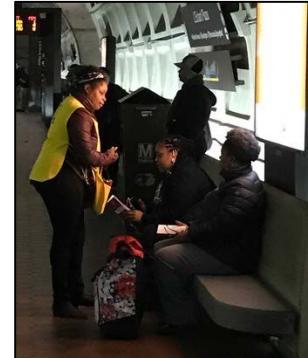
Team members distributed brochures and fliers in English and Spanish about the FY18 budget and an along with pencils. All brochures and fliers included a survey that could be taken and handed back to a team member or dropped off in a survey collection box that was available at all Metrorail stations. The brochures included a statement in Amharic, Chinese, French, Korean, and Vietnamese to call the language line for more information in those languages. View copies of the brochures, flier and survey on pages 7 and 8.

**Over 118,000 brochures and fliers were distributed during the week-long outreach.** A total of 3,792 paper surveys were collected from team members and survey collection boxes in stations, accounting for 27% of all feedback collected during the public comment period.




Station/Bus Stop Outreach By the Numbers	
# of outreach shifts	49
# of locations	47
# of outreach hours	194.5
Material Distribution	
# of English brochures/surveys distributed	90,000
# of Spanish brochures/surveys distributed	6,300
# of fliers/surveys distributed	22,000
<b>Total # of brochures/fliers distributed</b>	<b>118,000</b>
Paper Survey Collection	
# of English paper surveys collected	3,763
# of Spanish paper surveys collected	29
<b>Total # of paper surveys collected</b>	<b>3,792</b>

Station/Bus Stop Outreach Schedule		
Date	Station	Shift Time
Monday, January 23, 2017	Columbia Heights	6:00-10:00 a.m.
	Fort Totten	
	Silver Spring	
	West Hyattsville	
	Wiehle-Reston East	
Monday, January 23, 2017	Franconia-Springfield	3:30-7:30 p.m.
	Glenmont	
	Huntington	
	Rhode Island Ave	
Tuesday, January 24, 2017	Dupont Circle	6:00-10:00 a.m.
	East Falls Church	
	Farragut North	
	Farragut West	
	McPherson Sq	
Tuesday, January 24, 2017	Bethesda	3:30-7:30 p.m.
	Brookland-CUA	
	Pentagon	
	Pentagon City	
Wednesday, January 25, 2017	Anacostia	6:00-10:00 a.m.
	Congress Heights	
	Greenbelt	
	L'Enfant Plaza	
	Rosslyn	
Wednesday, January 25, 2017	Pentagon	3:30-7:30 p.m.
	Silver Spring	
	Southern Ave	
	West Falls Church	
Thursday, January 26, 2017	Branch Ave	6:00-10:00 a.m.
	Metro Center	
	Naylor Road	
	Vienna	
	White Flint	
Thursday, January 26, 2017	Dunn Loring	3:30-7:30 p.m.
	New Carrollton	
	Grosvenor	
	King St-Old Town	



Friday, January 27, 2017	Deanwood	6:00-10:00 a.m.
	Medical Center	
	Minnesota Ave	
	Shady Grove	
Friday, January 27, 2017	Foggy Bottom-GWU	3:30-7:30 p.m.
	Gallery Place	
	Union Station	
Saturday, January 28, 2017	Reagan National Airport	5:30-8:00 a.m.
Monday, January 30, 2017	Addison Road	6:00-10:00 a.m.
	Benning Road	
	Capitol Heights	
	Largo Town Center	
	Morgan Blvd	






## REALITYCHECK

# FY18 BUDGET PROPOSAL

Read about Metro's proposed changes to fares and service and tell us what you think.  
More at [wmata.com/budget](http://wmata.com/budget)

FEEDBACK FORM INSIDE



Si desea obtener información sobre las propuestas de presupuesto para el Año Fiscal 2018 de Metro en español, visite [wmata.com/budget\\_espanol](http://wmata.com/budget_espanol) o solicite este folleto en español a un miembro del personal de Metro.

Si vous souhaitez obtenir des informations en français concernant les propositions de budget de Metro pour l'exercice financier de 2018, veuillez appeler le 202-637-7000.

如果您想要通过您使用的语言来了解 Metro 2018 年财务预算方案的相关信息，请致电服务热线：202-637-7000

귀하의 언어로 된 Metro 2018 회계연도 예산안 정보를 원하실 경우, 전화 문의 라인이 202-637-7000번으로 전화하 주십시오.

በዓመት ስለ ሚኒት 2018 የበጀት ማመት የበጀት ስራዎች መረጃን ከሌለት፣ በድንገት መስመር 202-637-7000 ይደውሉ።


Nếu quý vị muốn có thông tin về các dự kiến ngân sách Năm Tài Chính 2018 của Metro bằng ngôn ngữ của quý vị, vui lòng gọi Đường Dây Nóng Ngữ theo số 202-637-7000.

### Who pays for Metro?

For Fiscal Year 2018, Metro General Manager Paul J. Wiedefeld has proposed a \$3.1 billion budget that funds key safety, service and ridership initiatives critical to reversing the future for Metro.

Fares paid by customers, advertising in ads and on buses and trains, and other revenue sources cover just a portion of the operating costs. Additional contributions come from regional and federal funding partners to cover operating expenses and capital projects, while fares paid by customers have not increased since July 2014, contributions from government sources have increased each year.

### Metro funding sources



### Tell us what you think!

Provide your feedback by 9:00 a.m. on Monday, February 6, 2017.

Take the survey! You can either fill out the survey online at [wmata.com/budget](http://wmata.com/budget), or fill it in the survey collection bins near the faregates at your nearest Metrolink station.

Attend an open house from 4:00-6:30 p.m. and public hearing starting at 5:00 p.m. at Metro Headquarters, 600 5th Street NW, Washington DC on Monday, January 30, 2017. Speaker registration is onsite only and will close at 9:00 p.m.

Public feedback will be provided to Metro's Board of Directors in March 2017 as part of the final decision making process. Any Board-approved fare or service changes will begin on July 1, 2017.

Public participation is solicited without regard to race, color, national origin, age, gender, religion, disability or family status. If you require special accommodations under the Americans with Disabilities Act or translation services (TTY: 202-955-0033) at least 48 hours prior to the public hearing date.

### Proposed Service Adjustments

#### BUS

Listed on the following pages are routes by jurisdiction and a description of the proposed change for each route.

Maps and detailed information about the changes listed are available at [wmata.com/budget](http://wmata.com/budget).

These alternatives are listed on some routes. These may only show segments of the proposed eliminated service and should not be considered a direct replacement. See alternative service route maps and timetables for more information.

The proposed elimination of routes 10K, 19K, 19S and B27 will impact the MetroAccess service area.

#### District of Columbia

##### 5A DC-Dulles (Airport Express)

Eliminate service or raise fare.

Proposed fare adjustments:

Eliminate service or raise fare.

### Proposed Fare Adjustments

The following fare adjustments are all proposed by Metro and the local jurisdictions as possible solutions to help close the budget gap.

#### RAIL

##### Standard Fares

- Increase Metrolink rush hour fares up to \$0.10
- Increase Metrolink non-rush hour fares up to \$0.25

##### Passes

- Replace the 1-day unlimited rail pass with a new 1-day unlimited "combo" rail and bus pass for \$14.75
- Eliminate the 28-Day Metrolink Pass\*
- Increase the 7-Day Short-Trip Pass by \$2.50 and 7-Day Fast Pass by \$0.75
- Increase the monthly TransitLink Card (TLC) on MARC and VRE by \$3.00 and MTA by \$5.00
- Eliminate DC student 10-trip rail pass as a result of the Kids Ride Free program and the DC SmartStudent pass

\* New monthly SmartPass was approved in December 2015 and is now available at multiple price points.

#### PARKING

- Increase weekday Metrolink parking fee up to \$0.10
- Adjust parking prices by +/- \$0.25 at up to three locations per jurisdiction. Price changes would be in addition to any approved parking fee increase and locations would be designated by the jurisdiction.

\* The District of Columbia has proposed to decrease the daily parking fee at Anacostia station by \$0.25 and increase the daily parking fee at Minnesota Ave and Rhode Island Ave by \$0.25. Other jurisdictions have not listed their choices.




## VUELTA A LA REALIDAD

# PRESUPUESTO PROPUESTO PARA EL AÑO FISCAL 2018

Lea sobre los cambios propuestos por Metro para las tarifas y el servicio y díganos lo que piensa.  
Más información en [wmata.com/budget](http://wmata.com/budget)

Formulario para comentario en el interior

### Tell us what you think about Metro's proposed changes to fares and service.

Díganos que piensa sobre los cambios propuestos en las tarifas y servicios.

For Fiscal Year 2018, General Manager Wiedefeld's "Reality Check" budget proposal identified a gap of \$290 million – larger than recent years due to growing expenses to operate and maintain the system and declining ridership. Facing this major funding challenge, Metro's Board of Directors must consider every available option to balance the budget. **Some fare and service adjustments could affect you.**

Para el Año Fiscal 2018, la propuesta de presupuesto "Reality Check" del Gerente General Wiedefeld identificó una brecha de \$290 millones – más grande que los años recientes debido a los crecientes gastos para operar y mantener el sistema y la disminución del número de pasajeros. Ante este importante desafío de financiamiento, la Junta Directiva de Metro debe considerar todas las opciones disponibles para equilibrar el presupuesto. **Algunos los ajustes en las tarifas y los servicios lo podrían afectar a usted.**

### Tell us what you think by 9:00 a.m. on Monday, February 6, 2017.

Take the survey on the back of this flyer, online at [wmata.com/budget](http://wmata.com/budget) or attend an open house from 4:00-6:30 p.m. and public hearing starting at 5:00 p.m. at Metro Headquarters, 600 5th Street NW, Washington DC on Monday, January 30, 2017. Speaker registration is onsite only and will close at 9:00 p.m. Public feedback provided to Metro's Board of Directors in March 2017 as part of the final decision making process. Any Board-approved fare or service changes will begin on July 1, 2017.

### ¿Qué le parece antes de las 9:00 a.m. del lunes, 6 de febrero de 2017.

La encuesta en línea en [wmata.com/budget](http://wmata.com/budget) o asista a la reunión pública (open house) de 4:00-6:30 p.m. y a la audiencia pública que comienza a las 5:00 p.m. en las oficinas centrales de Metro, 600 5th Street NW, Washington DC el lunes 30 de enero de 2017. La inscripción en el sitio solo en las conferencias y se cerrará a las 9:00 p.m. La opinión de los pasajeros será proporcionada al Consejo de Directores de Metro en marzo de 2017 como parte del proceso de decisión final. Toda la información de servicios aprobados por el Consejo de Directores comenzará el 1 de julio de 2017.

El folleto en la parte posterior de este folleto, en línea en [wmata.com/budget](http://wmata.com/budget) o asista a la reunión pública (open house) de 4:00-6:30 p.m. y a la audiencia pública que comienza a las 5:00 p.m. en las oficinas centrales de Metro, 600 5th Street NW, Washington DC el lunes 30 de enero de 2017. La inscripción en el sitio solo en las conferencias y se cerrará a las 9:00 p.m. La opinión de los pasajeros será proporcionada al Consejo de Directores de Metro en marzo de 2017 como parte del proceso de decisión final. Toda la información de servicios aprobados por el Consejo de Directores comenzará el 1 de julio de 2017.

Brochure (English/Spanish), Flier

Language Line info in Amharic, Chinese, French, Korean, and

### Balancing the budget

1) Considering the shared sacrifice among customers, jurisdictions and Metro business operations, how fair do you think the General Manager's proposed budget is? Check one.

☐ Very Fair  
☐ Somewhat Fair  
☐ Not that Fair  
☐ Not at all Fair

2) If you had the opportunity to decide who pays what share of the budget gap, what percent do you think should be covered by each area? Your percentages must add to 100. If you don't think an entity should pay any additional amount, please enter "0".

Federal government	_____ %
State and local governments	_____ %
Fare adjustments	_____ %
Service adjustments	_____ %
Metro business operations	_____ %
<b>Total:</b>	<b>100%</b>

### Adjusting fares and service

3) If fare adjustments must be considered as part of next year's budget, which of the following would be acceptable to you? Check all that apply.

**RAIL** *Learn more on page 5*

☐ Increase Metrolink rush hour fare up to \$0.10  
☐ Increase Metrolink non-rush hour fare up to \$0.25  
☐ Replace the 1-day rail pass with 1-day commo rail and bus pass for \$14.75  
☐ Eliminate the 28-day rail pass  
☐ Increase other rail passes to correspond with fare increases

**BUS** *Learn more on page 6*

☐ Increase regular Metrobus fare by \$0.25  
☐ Increase express Metrobus fare by \$0.25  
☐ Increase airport Metrobus fare up to \$2.75  
☐ Increase 7-day unlimited regional bus pass to correspond with fare increases

**PARKING** *Learn more on page 5*

☐ Increase weekday Metrolink parking fees up to \$0.10  
☐ Adjust parking prices by +/- \$0.25 at up to three parking locations per jurisdiction.

4) If service adjustments must be considered as part of next year's budget, which of the following would be acceptable to you? Check all that apply.

**RAIL** *Learn more on page 7*

☐ **Red Line:** Reduce the frequency of trains during rush hour from every 6 to every 8 minutes.  
☐ **Red Line:** End every other train at Grosvenor instead of Shady Grove during non-rush hour/weekends.  
☐ **Blue Line:** Increase the frequency of trains during rush hour from every 12 to every 8 minutes.  
☐ **Yellow Line Rush Plus (Franconia-Springfield - Greenbelt):** Eliminate "rush" trains that run between Franconia-Springfield and Greenbelt during rush hours.  
☐ **Silver Line:** End every other train at Stadium-Armory instead of Largo Town Center during weekday evening/weekends.  
☐ **Orange, Silver, Green and Yellow Lines:** Reduce the frequency of trains during rush hour by 2 minutes.

☐ **All Lines:** Reduce the frequency of trains during non-rush hour and weekends by 3 minutes (e.g. from every 12 minutes to every 15 minutes)

**BUS** *Learn more on pages 8-11*

☐ **District of Columbia:** Eliminate or modify the following routes: 5A, 37, B6, 3, G3, H6, S2, 4, S9  
☐ **Maryland:** Eliminate or modify the following routes: B30, B27, C3, C11, 13, F1, 2, H11, 12, 13, J1, 15, J7, 9, P17, 18, 19, 12, 14, W13, 14, W19, 27, Z11  
☐ **Virginia:** Eliminate or modify the following routes: 1C, 2B, 2T, 3T, 5A, 7X, 15Y, 16KL, 16GJ, 1, K, 16X, 17A, B, F, M, 18P, R, S, 26A, 28X, RDX

5) If you had to pick between these fare adjustments or service adjustments to balance Metro's budget, which would you prefer?

☐ Fare adjustments  
☐ Service adjustments  
☐ Doesn't matter to me

### Impacts to You

6) What most concerns you about the proposed rail adjustments? Check one.

☐ Not concerned at all about proposed rail adjustments  
☐ Trains won't be available when I need them  
☐ Trains will be more crowded  
☐ I don't support rail cuts in general  
☐ Other concerns (please specify): \_\_\_\_\_

7) What most concerns you about the proposed bus adjustments? Check one.

☐ Not concerned at all about proposed bus adjustments  
☐ A route I depend on is being cut  
☐ A route I depend on will run less frequently  
☐ I don't support bus cuts in general  
☐ Other concerns (please specify): \_\_\_\_\_

8) Please tell us a little bit about which fare or service adjustments will greatly impact you? This could include a bus route you use or a budgetary problem you may face.

\_\_\_\_\_

### Tell us about you.

9) Which Metro services would you say you use on a regular basis? Check all that apply.

☐ Metrolink  
☐ Metrobus  
☐ MetroAccess  
☐ I don't use Metro services regularly

10) In what county or jurisdiction do you live? Check one. If you live in Fairfax County, please specify if you live in City of Falls Church or City of Fairfax.

☐ Arlington County  
☐ City of Alexandria  
☐ District of Columbia  
☐ Fairfax County  
☐ City of Falls Church  
☐ City of Fairfax  
☐ Loudoun County  
☐ Prince George's County  
☐ Outside of the region  
☐ Prefer not to answer

11) Which one of the following best describes your race? Check all that apply.

☐ White/Caucasian  
☐ Black/African American  
☐ Hispanic/Latino  
☐ Asian  
☐ Hawaiian or other Pacific Islander  
☐ American Indian or Alaska Native  
☐ Other (Specify): \_\_\_\_\_  
☐ Prefer not to answer

12) Which of the following ranges contains your annual household income (before taxes)? Check one.

☐ Less than \$30,000  
☐ \$30,000 or more  
☐ Prefer not to answer

Your feedback is very important to us. Please fill out this survey and place it in a survey collection bin at any Metrolink station by Monday, February 6, 2017.

### Equilibrio presupuestario

1) ¿Considerando el sacrificio compartido entre los usuarios, jurisdicciones y la administración de Metro, ¿cuán justo cree que es el presupuesto propuesto por el Gerente General? Marque uno.

☐ Muy justo  
☐ Algo justo  
☐ No tan justo  
☐ Nada justo

2) Si tuviera la oportunidad de decidir quién paga qué para cubrir la brecha presupuestaria, ¿qué porcentaje cree que debería cubrir cada área? Sus porcentajes deben sumar 100. Si cree que un área no debe pagar un porcentaje, ponga "0".

Gobierno federal	_____ %
Gobiernos estatal y locales	_____ %
Ajustes de tarifas	_____ %
Ajustes de servicio	_____ %
La administración de Metro	_____ %
<b>Total:</b>	<b>100%</b>

### Ajuste de tarifas y servicio

3) En caso de que se tengan que ajustar las tarifas como parte de la propuesta para equilibrar el presupuesto del próximo año, ¿cuál de las siguientes alternativas sería aceptable para usted? Marque todo lo que corresponda.

**TREN** *Mez información en la página 3*

☐ Aumentar la tarifa de hora pico de Metrolink hasta \$0.10  
☐ Aumentar la tarifa de hora no pico de Metrolink hasta \$0.25  
☐ Reemplazar el pase de tren de 1 día por un pase combinado de tren y autobús de 1 día por \$14.75  
☐ Eliminar el pase de tren de 28 días  
☐ Aumentar otros pases de tren para ajustarse a los aumentos de tarifas

**AUTOBUS** *Mez información en la página 3*

☐ Aumentar las tarifas regulares de Metrobus en \$0.25  
☐ Aumentar la tarifa expres de Metrobus en \$0.25  
☐ Aumentar la tarifa para el aeropuerto de Metrobus hasta \$2.75  
☐ Aumentar el pase de autobús regional limitado de 7 días para ajustarse a los aumentos de tarifas

**ESTACIONAMIENTO** *Mez información en la página 3*

☐ Aumentar las tarifas de estacionamiento de otros sistemas de Metrolink hasta \$0.10  
☐ Ajustar los precios de estacionamiento en +/- \$0.25 en hasta tres ubicaciones de estacionamiento por jurisdicción.

4) En caso de ajustes en el servicio considerados para equilibrar el presupuesto del próximo año, ¿cuál de las siguientes son aceptables para usted? Marque todo lo que corresponda.

**TREN** *Mez información en la página 4*

☐ **Línea roja:** Reducir la frecuencia de los trenes durante las horas pico de cada 6 a cada 8 minutos.  
☐ **Línea roja:** Terminar cada dos trenes en Grosvenor en vez de en Shady Grove durante las horas no pico/fin de semana.  
☐ **Línea azul:** Aumentar la frecuencia de los trenes durante las horas pico de cada 12 a cada 8 minutos.  
☐ **Línea amarilla Rush Plus (Franconia-Springfield - Greenbelt):** Eliminar el servicio de los trenes Rush + que operan durante las horas pico entre Franconia-Springfield y Greenbelt.  
☐ **Línea plateada:** Terminar cada dos trenes en Stadium-Armory en vez de en Largo Town Center durante las horas no pico/fin de semana.  
☐ **Líneas anaranjada, plateada, verde y amarilla:** Reducir la frecuencia de los trenes durante las horas pico en 2 minutos.

☐ **Todas las líneas:** Reducir la frecuencia de los trenes durante las horas no pico y fines de semana en 3 minutos.

**AUTOBUS** *Mez información en la página 4-5*

☐ **Districto de Columbia:** Eliminar o modificar las siguientes rutas: 5A, 37, B6, 3, G3, H6, S2, 4, S9  
☐ **Maryland:** Eliminar o modificar las siguientes rutas: B30, B27, C3, C11, 13, F1, 2, H11, 12, 13, J1, 15, J7, 9, P17, 18, 19, 12, 14, W13, 14, W19, 27, Z11  
☐ **Virginia:** Eliminar o modificar las siguientes rutas: 1C, 2B, 2T, 3T, 5A, 7X, 15Y, 16KL, 16GJ, 1, K, 16X, 17A, B, F, M, 18P, R, S, 26A, 28X, RDX

5) Si tuviera que elegir entre estos ajustes de tarifas o ajustes de servicio para equilibrar el presupuesto de Metro, ¿qué preferiría? Marque uno.

☐ Ajustes de tarifas  
☐ Ajustes de servicio  
☐ Me da igual

### Impactos para usted

6) ¿Qué es lo que más le preocupa acerca de los ajustes de trenes propuestos? Marque uno.

☐ No está en absoluto preocupado por los ajustes de trenes propuestos  
☐ Los trenes no estarán disponibles cuando los necesite  
☐ Los trenes estarán más hacinados  
☐ No apoyo los recortes de trenes en general  
☐ Otras preocupaciones (especifique): \_\_\_\_\_

7) ¿Qué es lo que más le preocupa acerca de los ajustes de autobuses propuestos? Marque uno.

☐ No está en absoluto preocupado por los ajustes de autobuses propuestos  
☐ Una ruta de la que dependo así siendo recortada  
☐ Una ruta de la que dependo operará con menos frecuencia  
☐ No apoyo los recortes de autobuses en general  
☐ Otras preocupaciones (especifique): \_\_\_\_\_

8) Por favor, díganos un poco acerca de qué ajustes de tarifas o servicio le impactarán en gran medida. Esto podría incluir una ruta de autobús que usa o un problema presupuestario que puede enfrentar.

\_\_\_\_\_

### ¿Cuéntenos acerca de usted.

9) ¿Qué servicios de Metro diría que usa con mayor frecuencia? Marque todo lo que corresponda.

☐ Metrolink  
☐ Metrobus  
☐ MetroAccess  
☐ No uso los servicios de Metro regularmente

10) ¿En qué condado o jurisdicción vive usted? Marque uno. Si vive en el Condado de Fairfax, por favor especifique si vive en la ciudad de Falls Church o en la ciudad de Fairfax.

☐ Condado de Arlington  
☐ Ciudad de Alexandria  
☐ Distrito de Columbia  
☐ Condado de Fairfax  
☐ Ciudad de Falls Church  
☐ Ciudad de Fairfax  
☐ Condado de Montgomery  
☐ Condado de Loudoun  
☐ Condado de Prince George  
☐ Fuera de la región  
☐ Prefiero no responder

11) ¿Cuál de las siguientes opciones describe mejor su raza? Marque todo lo que corresponda.

☐ Blanco/Caucásico  
☐ Negro/Afroamericano  
☐ Hispano/Latino  
☐ Asiático  
☐ Hawaiano o de otra isla del Pacífico  
☐ Indio americano o nativo de Alaska  
☐ Otro (especifique): \_\_\_\_\_  
☐ Prefiero no responder

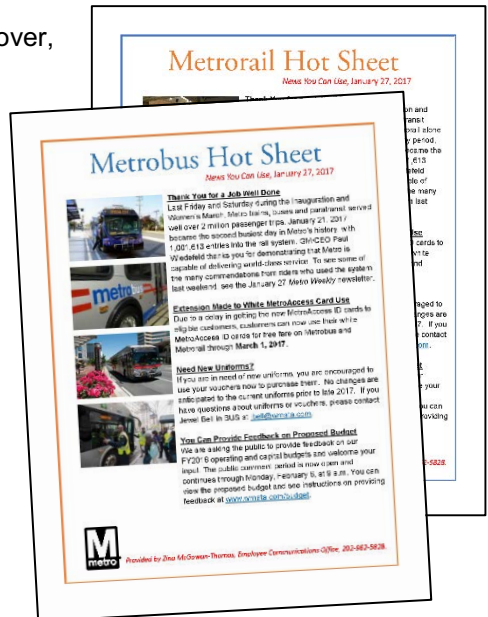
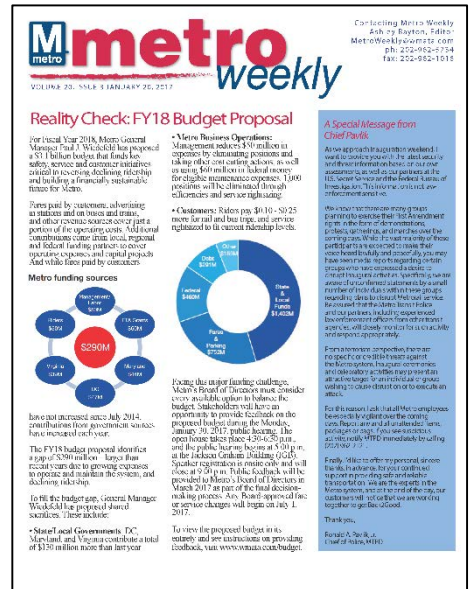
12) ¿Cuál de las siguientes intervalos contiene su ingreso familiar anual (antes de impuestos)? Marque uno.

☐ Menos de \$30,000  
☐ \$30,000 o más  
☐ Prefiero no responder



## Stakeholder Communication

- Members of Metro's Accessibility Advisory Committee (AAC) held several discussions on the proposed FY18 budget, including one meeting that was attended by General Manager Paul J. Wiedefeld. The AAC's official comments will be submitted in its monthly report to the Board.
- The Office of External Relations notified its 2,900+ stakeholder list, which includes places of worship, event venues, business improvement districts, residences and apartments, schools, shopping areas and more. The list also includes more than 300 Community Based Organizations (CBOs).
- The Office of Equal Employment Opportunity (OEEO) held a Community Based Organization Committee Meeting about the FY18 budget on January 25, 2017 at WMATA Headquarters and attendees included key representatives from DC Alliance of Youth Advocates, Academy of Hope, Washington English Center and Collaborative Solutions for Communities. More than 300 CBOs were invited to attend the meeting. 150 brochures were distributed to the attendees.
- Targeted visits and brochure drop-offs to the Towns of Cheverly, Landover, Fairmount Heights, Capitol Heights and Seat Pleasant, as well as the Transforming Neighborhood Initiative (TNI), a group of neighborhoods in the Oxon-Hill/Glassmanor community, were completed by OEEO during the public comment period. These areas have large Title VI populations and many have large bus-dependent residents. Over 800 brochures were distributed.
- The Office of Bus Planning hosted coordination meetings on Wednesday, February 1 and Thursday, February 2 with local jurisdictional partners to discuss proposed adjustments to Metrobus service as part of the FY18 budget.
- The Office of Government Relations provided extensive information on the FY18 budget proposals to local, state jurisdictional and Congressional staff. Staff addressed follow up questions to the plan to ensure elected officials and their staff had a thorough understanding of the options.
- Employees were notified of the proposals through the General Manager's weekly email message, MetroWeekly, Metro's employee newsletter, and the Metrobus and Metrorail "hot sheets" that are shared with the operation divisions.
- Amplify members were asked to weigh in on the proposed budget. Amplify is a community of 3,500 customers who provide on-going feedback to WMATA for immediate decision making.
- About 3,500 Registered SmarTrip holders who had taken a bus route proposed to be eliminated or modified within the last week were sent an email and encouraged to provide feedback.

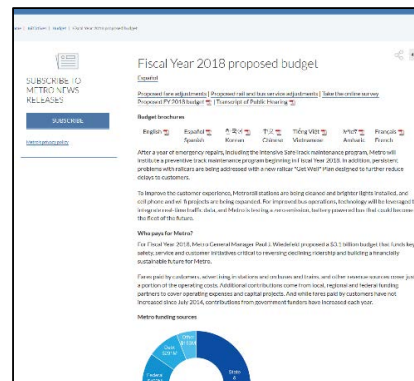




## Targeted Marketing & Media

Metro used targeted marketing and media strategies to increase awareness and encourage feedback on the proposal, with special attention given to the Spanish media.

- The creation of the webpages [wmata.com/budget](http://wmata.com/budget) and [wmata.com/budget\\_espanol](http://wmata.com/budget_espanol) informed customers about the proposal and how customers could provide information, including the survey link and outreach locations. The page [wmata.com/budget\\_espanol](http://wmata.com/budget_espanol) was professionally translated into Spanish, and contained pdf fliers in Amharic, Chinese, French, Korean, and Vietnamese.
- Legal notices were placed in the Washington Post on Saturday, January 14, 2017, and Saturday, January 21, 2017, notifying the public of the opportunities to provide public comment.
- Advertisements in newspapers throughout the region, including ethnic media in multiple languages:
  - The Express* (English)
  - The Afro* (English)
  - El Tiempo Latino* (Spanish)
  - Washington Hispanic* (Spanish)
  - Korean Times* (Korean)
  - Epoch Times* (Chinese)
  - Atref* (Amharic)
  - Doi Nay* (Vietnamese)
- English and Spanish signs posted in Metrorail stations, Bus Information Centers on Metrobus, and MetroAccess vehicles.
- Over 300 detailed signs in English and Spanish listing specific proposals were posted at select bus stops of impacted routes. Real-time arrival signs also displayed targeted messages at impacted stops.
- Copies of the English and Spanish flier and notices were sent to all jurisdictional libraries.
- Press releases were published on Tuesday, January 24, 2017 and Wednesday, February 1, 2017.
- The large amount of media coverage about the proposed budget included 29 stories in print publications (English and Spanish), 23 on radio, 12 online-only publications, and 21 on TV.
- Social media (Facebook, Twitter) was used to post information about the proposals and an advisory was sent to riders.



**FY2018 預算案**

REALITYCHECK

2018 預算案 9 月 14 日 開始 在 華盛頓 特區 的 各大 報章 刊登 (Reality Check) 廣告。廣告 內容 包括 2018 財政 年度 的 預算 案 內容。廣告 內容 包括 2018 財政 年度 的 預算 案 內容。廣告 內容 包括 2018 財政 年度 的 預算 案 內容。

**FY18 예산안**

REALITYCHECK

제너럴 매니저 Wiedefeld의 '현실 확인' 예산안에 따르면, 들어오는 시스템 운영 및 기타 비용과 승객 감소로 인해 2018 회계 연도에 대해 8%의 예산 삭감이 확인되었습니다. 이 중대한 절감의 대부분이 지하철, 상하차, Metro의 이사회는 예산 균형을 위해 가능한 모든 옵션을 고려해야 합니다.

**여러분의 의견을 알려주세요!**

wmata.com/budget에서 온라인 설문에 참여하십시오 Metro 본사(주소: 600 6th Street NW, Washington DC)에서 2017년 1월 30일 월요일에 열리는 오픈 하우스(오류 4시 30분 - 오류 6시 30분) 및 공청회(오류 5시)에 참석해 주십시오. 연사 등록은 현장에서만 가능하며 오류 5시에 마감됩니다. 2017년 2월 6일 월요일 오전 9시까지 여러분의 의견을 제출하십시오.

시민 의견은 최종 의사 결정 과정의 일환으로서 2016년 9월 메트로 이사회에 제공하게 됩니다. 모든 의사와 승인 요금 및 서비스 변경은 2017년 7월 1일에 시작됩니다.

**FY18 BUDGET PROPOSALS**

PROPOSALS PARA EL PRESUPUESTO DEL AÑO FISCAL 2018

The following route has a Proposed Service Adjustment as part of the Fiscal Year 2018 Budget Proposal.

Como parte de la propuesta del año 2018, las siguientes rutas han sido propuestas para ajustes en el servicio.

**C8 College Park-White Flint**

Modify route by **eliminating segment between** Glenmont and

Modificar la ruta entre las estaciones

Travel Alternatives

Red Line, C

Waps and service information about Metro's proposed budget adjustments, including the proposed route changes, is available on the Metro website.

**Tell us what you think!**

• Take a survey online at [wmata.com/budget](http://wmata.com/budget)

• Attend an open house from 5:00-7:00 p.m. on Monday, January 30, 2017, at Metro's Board Room, 600 6th Street NW, Washington, DC 20001

• Participate in a community meeting on Monday, February 6, 2017, at Metro's Board Room, 600 6th Street NW, Washington, DC 20001

**¡Díganos qué le parece!**

• Realice la encuesta en línea en [wmata.com/budget](http://wmata.com/budget)

• Asista a una reunión de puertas abiertas del 5:00 a las 7:00 p.m. el lunes 30 de enero de 2017 en la Sala de la Junta de Metro, 600 6th Street NW, Washington, DC 20001

• Participe en una reunión comunitaria el lunes 6 de febrero de 2017 en la Sala de la Junta de Metro, 600 6th Street NW, Washington, DC 20001

**Tell us what you think about Metro's proposed changes to fares and service.**

Díganos que piensa sobre los cambios propuestos en las tarifas y servicios.

For Fiscal Year 2018, General Manager Wiedefeld's "Reality Check" budget proposal has added a gap of \$250 million - the largest in recent years due to growing expenses to operate the system and declining ridership. Rising the major funding challenge. Metro's Board of Directors must consider every feasible option to balance the budget. **Some fare and service adjustments could affect you.**

Para el Año Fiscal 2018, la propuesta de presupuesto "Reality Check" del Gerente General Wiedefeld plantea una brecha de \$250 millones - más grande que los años recientes debido a los crecientes gastos para operar el sistema y la disminución de los pasajeros. Aumento el mayor desafío de financiación. La Junta de Directores de Metro deberá considerar todas las opciones viables para equilibrar el presupuesto. **Algunos cambios en las tarifas y los servicios le podrían afectar a usted.**

**Tell us what you think by 9:00 a.m. on Monday, February 6, 2017.**

Take the survey online at [wmata.com/budget](http://wmata.com/budget) or attend an open house from 4:00-6:00 p.m. at Metro's Board Room, 600 6th Street NW, Washington, DC on Monday, January 30, 2017. Speaker registrations close only and will close at 5:00 p.m. Public feedback will be provided to Metro's Board of Directors in March 2017 as part of the final decision making process. Any Board approval for fare or service changes will begin on July 1, 2017.

**Díganos qué le parece antes de las 9:00 a.m. del lunes, 6 de febrero de 2017.**

Realice la encuesta en línea en [wmata.com/budget](http://wmata.com/budget) o asista a una reunión de puertas abiertas del 4:00 a las 6:00 p.m. el lunes 30 de enero de 2017 en la Sala de la Junta de Metro, 600 6th Street NW, Washington, DC 20001. Las inscripciones para hablar en público cerrarán a las 5:00 p.m. La opinión del público se le proporcionará a la Junta de Directores de Metro en marzo de 2017 como parte del proceso de toma de decisiones. Cualquier aprobación de la Junta de Directores para cambios en las tarifas o servicios comenzará el 1 de julio de 2017.



## Open House & Public Hearing

Metro hosted an open house and public hearing on Monday, January 30, 2017 at WMATA Headquarters, 600 5<sup>th</sup> St NW, Washington DC. The open house ran from 4:30-6:30 p.m., and the public hearing began at 5:00 p.m., and the on-site speaker registration closed at 9:00 p.m.

The open house provided the opportunity for attendees to speak one-on-one with staff members about the proposals, and comprised of multiple “topic” tables: Budget & Capital Improvement Program, Rail Service Adjustments, Bus Service Adjustments, Fare Adjustments, MetroAccess, Customer Service, and a table for attendees to complete the survey.



The public hearing followed WMATA’s standard public hearing procedures. Copies of the presentation were available in English and Spanish. An option to record oral testimony separate than the formal public hearing was also provided; four people chose to provide testimony this way.



Multiple members of the WMATA Board of Directors participated, including Jack Evans, Malcolm Augustine, Jim Corcoran, Leif Dormsjo, Michael Goldman, Catherine Hudgins, and Kathryn Porter. In addition, members of WMATA’s Executive Management Team participated throughout the hearing. An overflow room was also utilized, which included audio and video of the live public hearing and the list of upcoming speakers.



Signage throughout the open house and public hearing was in English and Spanish, and Spanish-speaking staff was available throughout both events. WMATA headquarters is ADA accessible and conveniently located next to Gallery Place and Judiciary Sq Metrorail stations and multiple bus lines.



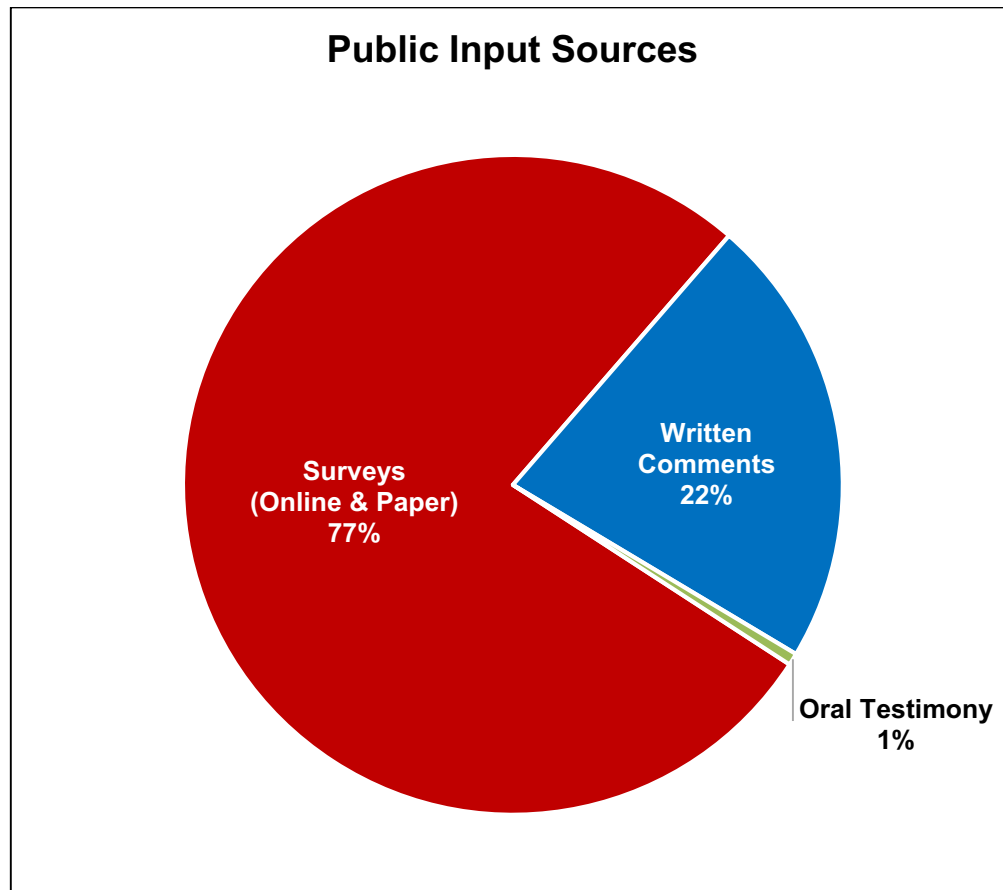
The oral testimony from the speakers at the public hearing and those audio statements that were recorded accounted for 1% of all feedback collected during the public comment period.

Open House # of Attendees	Public Hearing # of Speakers	# of Recorded Oral Testimony	# of Paper Surveys Collected
49	79	4	13

## PUBLIC INPUT RESULTS

Metro collected public input through surveys, written comments (online or letters sent to Board Office), and oral testimony at the public hearing during the public comment period from Saturday, January 14 through 9:00 a.m. Monday, February 6, 2017. Metro received over 14,000 responses to the proposed budget.

More than 75 percent of the input received came in using the survey tool, either online or on paper. Another 22% of the input received was written comment with nearly all being provided online. Oral testimony accounted for 0.5%.



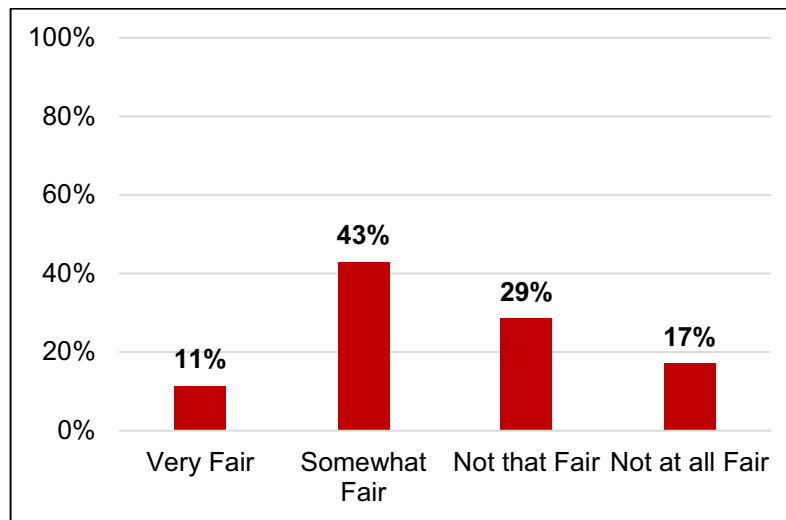
Feedback Type	Qty
Paper Surveys	3,792
Online Surveys	7,032
Written Comments	3,113
Oral Testimony	83
<i>n=</i>	<b>14,020</b>

## Survey Results

As previously stated, more than three-fourths of the public input was provided either in the online or paper survey. Regardless of formats, the surveys for online and paper were identical in content in length and questions asked. The surveys are aggregated for reporting purposes. A total of 10,824 surveys were available for analysis.

### Proposed Budget Fairness

Generally, a majority (54% of customers felt the proposed budget is “somewhat” or “very” fair. Nearly a third felt it is “not that fair” and another 17% felt the proposed budget is “not at all fair”.

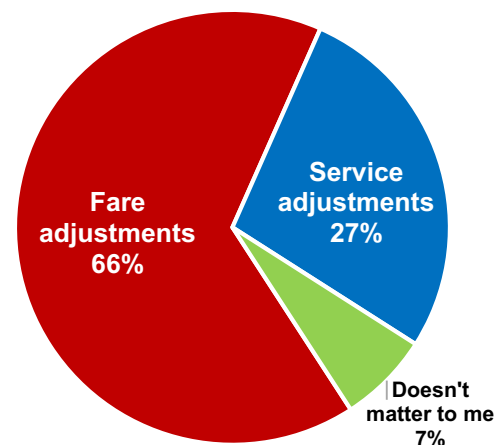


Minorities and low income customers were twice as likely as other groups to say the proposed budget is “not at all fair” compared to other groups. Regionally, little variation existed between jurisdictions. A majority of residents in each jurisdiction felt the proposed budget was “somewhat” or “very” fair.

### Fare Increase vs. Service Reduction Preferences

As is often the case in choice sets, customers tend to lean in one direction or another. The proposed budget asks customers to consider fare adjustment (majority increases) and service adjustments (majority reductions). When the choice of fares increases or service reductions is put to customers they unequivocally, by nearly 2 to 1, prefer fare increases to service reductions.

Regardless of ascribed or achieved characteristics, all customers prefer fare adjustments to service adjustments; the same can be said for place of residence.



### Fare Adjustment Acceptability

While customers may uniformly agree fare adjustments are preferred to service adjustments, they have strong preferences for how those fare adjustments are applied. Customers were asked which of the 11 proposed fare adjustments were *acceptable* to them for implementation. The following table shows the rank ordered preference of the 11 adjustments by percent saying it was “acceptable”.

Proposed Fare Adjustments	% of respondents	Acceptance Rank
Increase weekday Metrorail parking fees up to \$0.10	64	1
Increase Metrorail rush-hour fare up to \$0.10	59	2
Adjust parking prices by +/- \$0.25 at up to three parking locations per jurisdiction	54	3
Replace the 1-day rail pass with 1-day combo rail and bus pass for \$14.75	52	4
Increase 7-day unlimited regional bus pass to correspond with fare increases	50	5
Increase other rail passes to correspond with fare increases	45	6
Eliminate the 28-day rail pass	45	7
Increase airport Metrobus fare up to \$2.75	44	8
Increase express Metrobus fare by \$0.25	43	9
Increase Metrorail non-rush hour fares up to \$0.25	41	10
Increase regular Metrobus fare by \$0.25	32	11

Looking a bit deeper at how specific groups find fare adjustments acceptable, some but not many differences could be found. Whether respondents were exclusively a bus or rail customers or used both bus and rail, the top five fare adjustments found acceptable were virtually the same. Other findings included:

- Minorities found increases in rail fare increases during rush and non-rush and replacing the 1-day rail pass with a combo pass most acceptable.
- Low income populations found replacing the 1-day rail pass with a combo pass, an increase in rail fare during non-rush and an increase other rail passes most acceptable.
- DC residents found the rail fare increase during non-rush, replacing the 1-day rail pass with a combo pass, and rail fare increase during rush most acceptable.
- Virginia and Maryland residents found the rail fare increases during rush and non-rush and an increase to other rail passes most acceptable.

### Service Adjustment Acceptability

As evidenced to this point, customers prefer fare adjustments to service adjustments. Customers prefer more often bus adjustments to rail adjustments. Customers are often concerned their bus route won't be there when they need it more so than rail. Rail customers tend to be concerned about crowding on trains.

While customers are against service adjustments generally, they have strong preferences for how service adjustments should be applied if they must be considered. Customers were asked which of the 10 proposed service adjustments were *acceptable* to them for implementation. The following table shows the rank ordered preference of the 10 adjustments by percent saying it was "acceptable".

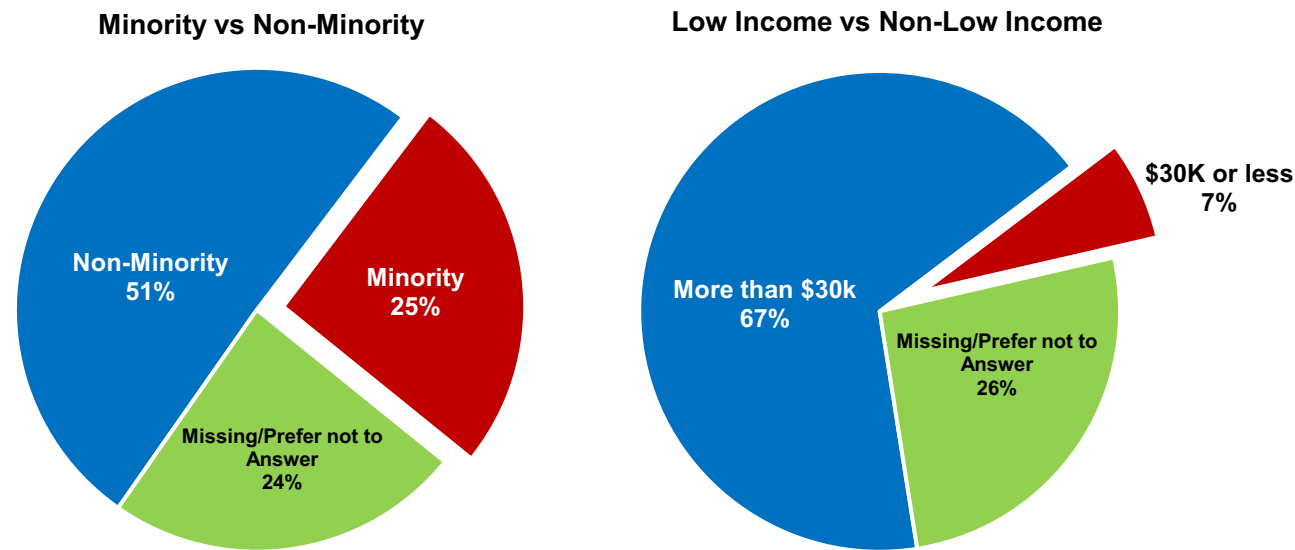
Service Adjustment	% of respondents	Acceptance Rank
End every other Silver Line train from Wiehle-Reston East at Stadium-Armory during non-rush hour/weekends	57	1
End every other Red Line train at Grosvenor instead of Shady Grove during non-rush hour/weekends	54	2
Increase the frequency of Blue Line trains during rush hour from every 12 minutes to every 8 minutes	50	3
Reduce the frequency of all trains during non-rush hour and weekends by 3 minutes (e.g. from every 12 minutes to every 15 minutes)	39	4
Eliminate Yellow Line Rush Plus (Franconia-Springfield to Greenbelt)	34	5
Bus service changes in Maryland	30	6
Bus service changes in Virginia	28	7
Bus service changes in DC	28	8
Reduce the frequency of Orange, Silver, Green and Yellow Line trains during rush hour by 2 minutes	27	9
Reduce the frequency of Red Line trains during rush hour from every 6 to every 8 minutes	26	10

Looking deeper at how specific groups find service adjustments acceptable, some but not many differences can be found. Whether respondents were exclusively a bus or rail customers or used both bus and rail, service adjustment acceptability was the virtually the same. Other findings included:

- Minorities and low income respondents, though in a slightly different order, found the top four service adjustments the most acceptable.
- Similarly, regional difference in the top 5 was slight; DC residents found the elimination of Yellow Line Rush Plus more acceptable than Virginia and Maryland.

Demographics

To guarantee equitable feedback gathering, staff conducted outreach at multiple stations and bus stops with bilingual staff to improve participation from Title VI populations and those with Limited English Proficiency. Though this year's proposed budget sparked more engagement than in recent years' budget outreach efforts (5 times higher than last year's proposals), the demographics of respondents were similar to those of other outreach efforts but still lower than the system average.



## Written Comments

Customers had an option to provide open-ended written comments online through the survey tool or deliver written letters to the Board Secretary's office. Metro received a total of 3,096 written comments online, and the Board Secretary's office received 17 letters.

Of the written comments collected online, respondents were able to self-select from different topics that best described to what their comments referred. The table below lists the different categories that the comments focused on.

Comment Category	# received in Category	% of Comments Received
Bus service adjustment	1233	39.8
Rail service adjustment	464	15.0
Some other suggestion	331	10.7
Increase efficiency or productivity	274	8.9
Rail fare adjustment	187	6.0
Not specified	178	5.7
Improve customer service	169	5.5
Bus fare adjustment	108	3.5
Save time labor materials or reduce cost	78	2.5
Capital improvement plan	74	2.4

All written comments, including the comments collected online and the delivered written letters can be read in Public Input Report Appendix A.

## Public Hearing Oral Testimony

83 people gave oral testimony at the Public Hearing on Monday, January 30, 2017. All oral testimony can be read in Public Input Report Appendix B.

## Approved Fare and Fee Changes

	CURRENT Fares/Fees	FY2018 Approved Fares/Fees
<b>Metrorail Fares</b>		
<b>Peak Fares<sup>1</sup></b>		
1 · Boarding charge (up to 3 miles)	\$2.15	<b>\$2.25</b>
2 · Composite miles between 3 and 6 miles	\$0.326	<b>no change</b>
3 · Composite miles over 6 miles	\$0.288	<b>no change</b>
4 · Maximum peak fare	\$5.90	<b>\$6.00</b>
5 · Charge for senior/disabled is one-half peak fare	\$1.05 - \$2.95	<b>\$1.10 - \$3.00</b>
<b>Off-Peak Fares<sup>2</sup></b>		
6 · Boarding charge (up to 3 miles)	\$1.75	<b>\$2.00</b>
7 · Composite miles between 3 and 6 miles	\$0.244	<b>no change</b>
8 · Composite miles over 6 miles	\$0.216	<b>no change</b>
9 · Maximum off-peak fare	\$3.60	<b>\$3.85</b>
10 · Charge for senior/disabled is one-half peak fare during off-peak	\$1.05 - \$2.95	<b>\$1.10 - \$3.00</b>
<b>Rail Passes</b>		
11 · One-day unlimited rail pass	\$14.50	<b>eliminate</b>
12 · One-day unlimited "combo" pass (rail and bus)	N/A	<b>\$14.75</b>
13 · One-day "convention" rail pass (bulk sales only) <sup>3</sup>	\$10.00	<b>no change</b>
14 · 7-day short-trip pass for rail	\$36.00	<b>\$38.50</b>
15 · 7-day fast pass for rail	\$59.25	<b>\$60.00</b>
16 · 28-day fast pass for rail	\$237.00	<b>eliminate</b>
17 · Monthly SelectPass <sup>4</sup>	varies	<b>varies</b>
<b>Other Rail Fares</b>		
18 · Bus-to-rail transfer utilizing SmarTrip® card	\$0.50 discount	<b>no change</b>
19 · 30-day DC SmartStudent pass & DC One card, within DC	\$33.00	<b>\$34.00</b>
20 · DC Student farecards & DC One Card - 10 rail trips within DC	\$10.30	<b>eliminate</b>
21 · Monthly TransitLink Card on MARC and VRE <sup>5</sup>	\$111.00	<b>\$114.00</b>
22 · Monthly TransitLink Card on MTA <sup>5</sup>	\$171.00	<b>\$176.00</b>
<b>Metrobus Fares</b>		
<b>Regular Fares</b>		
23 · Cash/SmarTrip® boarding charge for local/limited-stop bus	\$1.75	<b>\$2.00</b>
24 · Cash/SmarTrip® boarding charge for express bus	\$4.00	<b>\$4.25</b>
25 · Cash/SmarTrip® boarding charge for airport routes (5A/B30)	\$7.00	<b>\$7.50</b>
<b>Senior/Disabled: One-Half Regular Fares</b>		
26 · Cash/SmarTrip® boarding charge for local/limited-stop bus	\$0.85	<b>\$1.00</b>
27 · Cash/SmarTrip® boarding charge for express bus	\$2.00	<b>\$2.10</b>
28 · Cash/SmarTrip® boarding charge for airport routes (5A/B30)	\$3.50	<b>\$3.75</b>

<b>Metrobus Fares (cont.)</b>		<b>CURRENT Fares/Fees</b>	<b>FY2018 Approved Fares/Fees</b>
<b>Bus Transfers</b>			
29	· Bus-to-bus transfers utilizing SmarTrip® card	varies	<b>varies</b>
30	· Rail-to-bus transfer utilizing SmarTrip® card	\$0.50 discount	<b>no change</b>
31	· Transfer from MARC, VRE, & MTA with weekly/monthly pass	\$0.00	<b>no change</b>
32	· Transfer from regional bus partners	varies	<b>varies</b>
<b>Bus Passes</b>			
33	· 7-Day Regional Bus Pass	\$17.50	<b>no change</b>
34	· 7-Day Regional Senior/Disabled Pass	\$8.75	<b>no change</b>
<b>Other Fare Media</b>			
35	· Package of 10 tokens, available to organizations	\$17.50	<b>\$20.00</b>
36	· DC student tokens - 10 trips per pack	\$8.75	<b>\$10.00</b>
37	· DC student pass on DC One Card - 10 trips	\$8.75	<b>eliminate</b>
<b>MetroAccess Fares<sup>6</sup></b>			
38	· MetroAccess fare (within ADA 3/4 mile service corridor)	varies	<b>varies</b>
39	· Maximum fare	\$6.50	<b>no change</b>
<b>Parking Fees<sup>7</sup></b>			
40	· District of Columbia <sup>8</sup>	\$4.60	<b>\$4.45 - \$4.95</b>
41	· Montgomery County	\$4.35 - \$5.10	<b>\$4.45 - \$5.20</b>
42	· Prince George's County	\$4.60 - \$5.10	<b>\$4.70 - \$5.20</b>
43	· Virginia	\$4.85	<b>\$4.95</b>
44	· Monthly reserved parking fee	\$45.00 - \$65.00	<b>no change</b>
45	· Parking meters \$1.00/60 minutes	\$1.00	<b>no change</b>
46	· Prince George's parking garage at New Carrollton (monthly)	\$85.00	<b>no change</b>
47	· Non-Metro rider parking fees	\$8.60 - \$15.00	<b>no change</b>
48	· Voluntary demand-based pricing – raise or lower parking charge at up to three locations per Compact jurisdiction <sup>8</sup>	N/A	<b>+/- \$0.25</b>
<b>Other Fees</b>			
49	· Bicycle locker rental	\$120.00 (annual)	<b>no change</b>
50	· Surcharge on Entry/Exit for station improvements, two stations per Compact jurisdiction <sup>9</sup>	\$0.05	<b>no change</b>

<sup>1</sup> Peak fares are in effect from opening through 9:30 a.m. and from 3:00 p.m. to 7:00 p.m. weekdays, except on national holidays.

<sup>2</sup> Off-peak fares are in effect during all other hours on weekdays, Saturday and Sunday, and all national holidays.

<sup>3</sup> Discounted unlimited one-day pass for convention attendees, available through WMATA bulk sales only.

<sup>4</sup> The monthly SelectPass is available at multiple price points and priced at 36 times the corresponding fare. The pass holder may take an unlimited number of trips at that fare or lower; the difference in fare must be paid for any trip with a higher fare. The purchaser may choose to add an unlimited Metrobus pass at a discounted price of \$54 per month.

<sup>5</sup> Metro's portion of the TransitLink Cards on MARC, VRE, and MTA.

<sup>6</sup> *MetroAccess fare is twice the equivalent fixed route SmarTrip® fare based on fastest trip.*

<sup>7</sup> *Parking fees consist of Metro's base fee plus jurisdiction surcharge. Monthly fee for Prince George's parking at New Carrollton is \$70 base fee plus \$15 surcharge.*

<sup>8</sup> *Parking facilities with variable pricing are designated per jurisdiction discretion and require Board approval. For FY2018, at the designation of the District of Columbia, the daily parking fee will decrease at Anacostia station by \$0.25 and increase at Minnesota Ave and Rhode Island Ave stations by \$0.25. Variable price changes are in addition to any system-wide parking fee changes that may be approved.*

<sup>9</sup> *Rail stations with surcharge are designated per jurisdiction discretion pending Board approval.*

## Approved Service Changes

### I. Metrobus Service

Line Name	Route(s)	Regional/ Non-Regional	Description
<b>District of Columbia Service</b>			
Sixteenth Street	S2,4 & S9	Regional	Convert S2,4 trips to S9 trips (budget neutral)
<b>Maryland Service</b>			
Clinton	C11,13	Regional	Reduce frequency
Greenbelt - BWI Airport Express	B30	Non-Regional	Weekday only service, increase headway to 1 hour
Twinbrook - Silver Spring	J5	Non-Regional	Eliminate service
Marlow Heights - Temple Hills	H11,12,13	Regional	Reduce frequency
I-270 Express	J7,9	Non-Regional	Eliminate service in October 2017
River Road	T2	Non-Regional	Reduce frequency
Indian Head Express	W19	Non-Regional	Eliminate service
Oxon Hill - Fort Washington	P17,18,19	Regional	Turnback at Southern Ave.
Bock Road	W13,14	Regional	Turnback at Southern Ave.
Laurel - Burtonsville Express	Z7	Non-Regional	Reduce frequency
<b>Virginia Service</b>			
Burke Centre	18P,R,S	Non-Regional	Eliminate 18R,S, improve 18P
Leesburg Pike Limited	28A,X	Regional	Eliminate service on Priority Corridor Network (PCN) Transit Signal Priority (TSP) corridor, improve 28A
Chain Bridge Road	15K,L	Regional	Eliminate Rosslyn branch, serve EFC
DC - Dulles	5A	Regional	Reduce frequency
Lincolnia - Pentagon	7W,X	Regional	Eliminate 7X service, improve 7W
Arlington - Union Station	13Y	Regional	Eliminate service
Tysons Corner - Dunn Loring	2T	Regional	Eliminate service
Kings Park	17A,B,F,M	Non-Regional	Eliminate 17A,F keep 17M and truncated 17B
Richmond Highway Express	REX	Regional	Extend route and reduce frequency
Fair Oaks - Jermantown Road	2B	Regional	Reduce weekday peak frequency

## Proposed Service Changes – Revised

### II. Metrorail Service

<b>Widen WEEKDAY peak period headways</b>
- Widen Orange/Green/Yellow/Silver Line weekday peak headways from 6 minutes to 8 minutes. Add Trippers on Orange/Green when necessary. Increase percentage of 8-car consists when possible.
- Reduce Blue Line headway from 12 minutes to 8 minutes and eliminate Rush Plus Yellow Line service
- Widen Red Line weekday peak headways from 6 to 8 minutes north of Silver Spring and Grosvenor. Widen Red Line weekday peak headways from 3 to 4 minutes at all other stations.

# M E M O R A N D U M



SUBJECT: FY2018 Budget Proposal –  
Title VI Equity Analysis

DATE: March 17, 2017

FROM: OEE0 – James T. Wynne, Jr.

THRU: FAIR – Franklin Jones

TO: GM/CEO – Paul J. Wiedefeld

This memorandum serves as the Title VI analysis for the fare and service changes associated with Metro's proposed Fiscal Year 2018 Operating Budget as presented at the March 23, 2017 Board Meeting.

## I. Conclusion

Based on the Title VI equity analysis, staff has determined that the proposed fare and service changes associated with the FY18 Operating Budget do not result in a disparate impact (DI) on minority populations or a disproportionate burden (DB) on low-income populations. The fare proposals do impact minority and low-income customers at a slightly higher rate than non-minority and non-low-income customers. However, these differences fall below the DI and DB thresholds. The service proposals impact minority and low-income customers at a lower rate than non-minority and non-low-income customers. Therefore, no DI or DB exists.

## II. Fare and Service Change Proposals

In November 2016, the GM/CEO put forward a proposed FY2018 Operating Budget. In order to close a budget shortfall of nearly \$300 million, the proposal includes employee headcount reductions, use of Federal Transit Administration (FTA) grant funds for preventive maintenance activities, increased jurisdictional contributions, and fare increases and service reductions on both bus and rail.

Based on input from the public outreach process and consultations with the jurisdictions, the GM/CEO's revised budget proposal presented at the March 9 Finance Committee includes the following fare changes aimed at increasing revenue as shown in Table 1:

**Table 1: Major Policy Direction, Rail and Bus Fares**

<b>Rail Peak</b>	\$0.10 increase: \$2.25 base fare, \$6.00 max fare
<b>Rail Off-Peak</b>	\$0.25 increase: \$2.00 base fare, \$3.85 max fare
<b>Local Bus</b>	\$0.25 increase: \$2.00 base fare
<b>Express Bus</b>	\$0.25 increase: \$4.25 base fare

## FY2018 Budget Proposal – Title VI Equity Analysis

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<b>Airport Bus</b>	\$0.50 increase: \$7.50 base fare
<b>Parking</b>	\$0.10 increase <sup>1</sup>

Table 1 highlights the major fare changes proposed in the FY18 Operating Budget. Attachment B to the budget adoption resolution details the complete list of the proposed changes to Metro's fare policy, such as a proportional increase in the cost of most daily, weekly and monthly passes as well as the elimination of some lightly-used pass products. Metro has incorporated these proposed fare changes into this updated analysis, except for the changes noted below, which were immaterial and impractical to incorporate.

The revised budget proposal also includes a number of service modifications to both Metrorail and Metrobus service, designed to reduce operating costs and increase system efficiency, which are summarized in Table 2.

**Table 2: Summary of Bus and Rail Service Changes**

<b>Peak Rail Service</b>	Increase peak headways of Orange, Silver, Yellow, Green and Red Lines from 6 to 8 mins. Eliminate Rush Plus and reduce Blue Line peak headway from 12 to 8 mins.
<b>Bus Service</b>	Discontinue routes or segments of routes with low ridership. Reduce frequency on routes/time periods with excess capacity.

Attachment C to the budget adoption resolution details the complete list of Metrobus service changes, which incorporates input from the local jurisdictions and the public. Metro has included each major service change in its service equity analysis.

It is important to note that new service on the NH2 bus line is not included in the analysis. The NH2 currently operates as a pilot, which, under Title VI guidance, is exempt from an equity analysis for a period of up to one year. Staff is in the process of evaluating the performance of this route and collecting demographic data, and will take the decision of whether or not to make the route permanent to the Board later this year. Therefore, the equity analysis for the NH2 will be presented to the Board at that time.

<sup>1</sup> At most stations. If approved, variable pricing would result in a \$0.25 decrease at Anacostia and a \$0.25 increase at Minn. Ave. and Rhode Island Ave.

## FY2018 Budget Proposal – Title VI Equity Analysis

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**III. Title VI Analysis**

When a transit agency proposes a fare change or a major service change, the FTA, in its Title VI Circular 4702.1B, requires that the transit agency conduct an equity analysis to determine whether the service change will result in a disparate impact (DI) on minority riders or a disproportionate burden (DB) on low-income riders.

In conducting the equity analysis, Metro used the following survey and operations data to determine which populations would be affected by each proposed fare or service change:

- 2016 Travel Trends Rail Passenger Survey (Spring, 2016);
- 2014 Metrobus Passenger Survey (Spring/ Fall 2014);
- Metrorail and Metrobus ridership data collected Spring 2016 (prior to SafeTrack<sup>2</sup>); and
- Metrorail and Metrobus revenue data collected Spring 2016 (prior to Safetrack<sup>2</sup>)

Because the proposed FY18 Operating Budget considers changes to both Metrobus and Metrorail service, staff combined the bus and rail changes to assess service and fare equity. This “cumulative” approach is the most effective way to assess the proposed budget’s effect on minority and low-income populations. For instance, bus service has a higher concentration of minority and low-income riders compared to rail service. Thus, taking the cumulative approach ensures that the analysis accurately assesses whether the proposed operating budget fairly balances service cuts and fare changes between bus and rail service.

Nevertheless, as detailed below, Metro’s fare and service equity analyses show that no DI or DB exists even when the bus and rail changes are assessed independently.

**a. Fare Changes**

In Resolution 2013-27, the Board approved Metro’s DI/DB thresholds. For fare changes, the DI/DB threshold is five percent, meaning that the average fare increase for minority and low-income riders cannot exceed the average fare increase for non-minority and non-low-income riders by more than five percent.

To assess fare impacts, staff first calculated the average fare paid for bus, rail, and parking customers by demographic cohort on a typical weekday.<sup>2</sup> To accomplish this, staff calculated the fare paid by each rail customer for each origin and destination pair on rail by time of day (peak vs. off-peak) and by fare categories

<sup>2</sup> Given the impact of SafeTrack on ridership patterns, staff used an April/May 2016 ridership and revenue base

## FY2018 Budget Proposal – Title VI Equity Analysis

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(regular fare, senior/disabled fare, passes) and divided that by the number of customers in each category to create an average fare paid per trip. These data are then merged with survey data for the same origin and destination pairs and/or fare categories to create an average fare paid by demographic group (minority vs. non-minority, low income vs. non-low income). On bus, the process is somewhat simpler, in that fares do not vary by time of day, only by the type of service (regular, express and airport) and by fare category (regular fare, senior/disabled fares, passes).

Future fares are calculated in the same way, except that the proposed fare policy changes are used in place of the current fares. The current average fare is then compared to the proposed average fare to determine the percentage change in fare by demographic group shown in Table 3. In other words, to determine the total percentage increase, Metro calculated the amount of revenue by demographic group from the proposed rail, bus, and parking fare changes. Metro then took that number and divided it by the number of customers in each demographic group. This 'average fare' for the proposed budget is then compared to the current average fare for these same groups. The percentages shown in Table 3 are the differences in these two values. For example, an increase from \$3.00 to \$3.15 works out to a difference of \$0.15 or 5 percent.

**Table 3: DI/DB Test, Percentage Fare Increase by Demographic Group**

	Minority	Non-Minority	Low Income	Non-Low Income
Rail	4.6%	4.6%	6.0%	4.5%
Bus	13.7%	14.2%	13.3%	14.3%
Parking	2.0%	2.0%	2.3%	2.0%
<b>Total</b>	<b>6.9%</b>	<b>5.1%</b>	<b>9.9%</b>	<b>5.3%</b>
Difference		<b>1.8%</b>		<b>4.6%</b>
Board Adopted Threshold		5.0%		5.0%
DI/ DB		<b>No</b>		<b>No</b>

As shown in Table 3, the proposal passes Metro's DI/DB test, as the difference in the cumulative average fare (combining rail, bus, and parking) paid by minority riders and non-minority riders is 1.8 percent, and the difference between low-income and non-low-income riders is 4.6 percent, both of which are below the 5.0 percent threshold.

Although Metro believes that the cumulative approach produces the most accurate analysis, Table 3 also shows that the average rail, bus, and parking fares do not independently create a DI or DB.

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Please note that the following proposed fare changes were not incorporated into the average fare increase calculation because these changes were neither practical to incorporate nor material to the analysis:

- 28-day Fast Pass: The proposal calls for the elimination of the 28-day Fast Pass. Consistent with other analyses of fare media eliminations, staff employed a “service” equity analysis, whereby the ratio of impacted minority and low-income trips was compared to the system average. These customers have a demographic make-up that is much lower—at 43 percent minority and five percent low income—than the system average; therefore, eliminating this pass does not result in a DI or DB. Furthermore, this is very lightly used fare product, with less than 700 weekday trips as of October 2016. Moreover, all of these customers could purchase a Select Pass that provides a similar functionality as the 28-day pass.
- DC SmartStudent Pass, DC One Card, and changes to the cost of tokens: The proposal includes changes to the cost of tokens for groups or students, a change in the 30 day DC SmartStudent Pass & DC One Card monthly fee from \$33 to \$34, and the elimination of 10 trip student pass on DC One Card. Metro does not have specific demographic data available to support an analysis of these changes. Furthermore, these pass products see little use now, as most DC school students ride Metrobus and Metrorail without paying a fare as part of the “Kids Ride Free Program.” Therefore, they are unaffected by the proposed budget.

b. Service Changes

As discussed in the prior section, because the proposed FY18 Operating Budget considers changes to both Metrobus and Metrorail service, staff calculated the impacted minority and low-income trips as a percentage of all impacted trips system-wide (rail and bus combined). The following table shows the combined rail and bus system profile that is used in the DI/DB determination.

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**Table 4: System Demographic Summary**

	<b>Annual Ridership (FY 2016)</b>	<b>% Minority Ridership</b>	<b>% Low Income Ridership</b>	<b>Annual Minority Trips</b>	<b>Annual Low Income Trips</b>
Rail	191,347,600	45%	13%	86,065,916	24,567,857
Bus	127,431,700	81%	52%	103,809,149	66,238,352
Total	318,779,300			189,875,064	90,806,209
<b>System Total Minority and Low Income</b>				<b>59.6%</b>	<b>28.5%</b>

Staff factored into its analysis all of the proposed major service changes, except for the NH2 line, which, as explained above, will require a separate equity analysis that will be presented to the Board later this year.

The proposed service changes may adversely impact riders in a number of ways. On bus and rail, longer headways mean customers have to wait longer for buses and trains. On rail, once they board, their train may be more crowded. In many cases, travelers will see a 25 percent reduction in service, from a 6 to 8 minute headway or a combined 3 to 4 minute headway.

On bus, some customers may have to use another bus route or transfer to rail to make the same trip as there is no longer direct service between their origin and destination. And, in some cases, there will no longer be a transit option available for that bus trip. As described below, Metro examined the demographics of those riders impacted by bus route eliminations, which will result in the most serious impact to riders. Those routes, however, were below the bus system average for minority and low-income demographics. Moreover, as detailed below, Metro identified alternative travel options for most of the eliminated routes.

Following the identification of impacted trips, the corresponding number of minority and low-income customers is tabulated using on-board survey data. Table 5 shows the combined number of rail and bus impacted trips over the course of a year (using a FY 2016 base).

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**Table 5: Impacted Trips Analysis**

	<b>Impacted Trips</b>	<b>Minority Impacted Trips</b>	<b>Low Income Impacted Trips</b>	<b>Minority %</b>	<b>Low Income %</b>
Metrorail	103,655,964	42,867,732	7,567,984	41.4%	7.3%
Metrobus	3,143,526	2,286,621	1,111,070	72.7%	35.3%
<b>Total</b>	<b>106,799,490</b>	<b>45,154,352</b>	<b>8,679,055</b>	<b>42.3%</b>	<b>8.1%</b>

To determine the daily impacted ridership, Metro selected the proposed service change with the highest number of affected riders. The proposed change in peak rail headways affects the most riders, impacting over 410,000 trips on an average weekday. Metro then applied the 410,000 daily riders impacted to the DI/DB thresholds in Table 6, which were adopted by the Board in Resolution 2013-27. This yielded a 5 percent DI/DB threshold.

**Table 6: DI/DB Threshold**

<b>Total Daily Riders Impacted</b>	<b>Threshold for Significant Disparity</b>
Up to 10,000	8%
10,001 to 20,000	7%
20,001 to 40,000	6%
Over 40,000	5%

Finally, Metro applied the impacted riders in Table 5 and the DI/DB thresholds in Table 6 to determine, in Table 7, whether the percentage of affected minority and low-income riders exceeded the system-wide average by more than Metro's DI/DB thresholds.

**Table 7: DI DB Test – Service Proposal**

	<b>Minority Impacted Trips</b>	<b>Low Income Impacted Trips</b>
Impacted Ratio	42.3%	8.1%
System (Rail + Bus) Average	59.6%	28.5%
<b>Difference</b>	<b>-17.3%</b>	<b>-20.4%</b>
Threshold	+5.0%	+5.0%
DI/ DB	<b>No</b>	<b>No</b>

## FY2018 Budget Proposal – Title VI Equity Analysis

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As shown above, the service changes associated with the proposed budget do not result in a DI or DB. The ratio of impacted minority and low-income trips is significantly lower than the corresponding system averages.

Although Metro believes that the cumulative approach produces the most accurate analysis, Table 7 also shows that the rail and bus service changes do not independently create a DI or DB. At 41.4 percent minority and 7.3 percent low income, the proportion of rail trips impacted is lower than the corresponding rail system averages of 45 percent and 13 percent, respectively. Also, at 72.7 percent minority and 35.3 percent low income, the ratio of impacted bus customers is lower than the corresponding 81 percent and 52 percent bus system averages.

### Alternative Service Analysis – Bus Route Eliminations

The most significant potential adverse impact to the customer could result from route or line eliminations. Therefore, staff conducted an analysis of alternative services available for customers to complete their trip.

In total, 13 routes were proposed for elimination.<sup>3</sup> None of these routes has a minority profile that exceeds the Metrobus system average of 81 percent and none of these routes has a low-income profile that exceeds the system average of 52 percent. Annual ridership on these affected routes totaled approximately 805,000 in FY 2016, or approximately 0.6 percent of the 126 million Metrobus trips made that year.

The analysis identifies typical origin and destination pairs for each route proposed for elimination to determine 1) if alternative service would be available, and 2) resulting impacts to travel times, transfers and fares on alternative service. Trips are run in both the peak and off-peak, where applicable, including Saturday and Sundays. Staff evaluated 15 trips for this analysis. The results are shown in Table 8.

**Table 8: Summary of Results, Route Eliminations**

Routes Impacted	13
Trips Analyzed	15
No Trip available	3
Increase In Travel Time (> 10 Mins.)	5
Additional Transfer	3
Fare Increase (>\$0.50)	1

<sup>3</sup> 3 Routes Proposed for Elimination at the start of FY2018: W19, J5, B30 (Sat. and Sun.), 2T, 18R, 18S, 28X, 7X, 17A, 17F, 13Y. The J7 and J9 will be eliminated starting October of 2017.

FY2018 Budget Proposal – Title VI Equity Analysis  
Page 9

As shown in Table 8, most customers impacted by the route eliminations would have alternative options to complete their trip.

However, customers traveling on three sampled trips between the origins and destinations on two routes—W19 and 13Y—would no longer have a transit option to complete the sampled trip. Some other route eliminations would create an impact on travel times or fare paid, although an alternative transit option exists. Five trips would see an increase in travel time of more than 10 minutes. One of the route eliminations (J5) would require a transfer to rail and therefore an increase in fare to complete the trip.



**ATTACHMENT E:**  
**WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY**  
**FY2018 APPROVED OPERATING BUDGET**

<i>(dollars in thousands)</i>	<b>Total</b>	<b>Subsidized</b>	<b>BUS</b>	<b>RAIL</b>	<b>ACCESS</b>	<b>REIMBURS.</b>
<b>REVENUES</b>						
Passenger	\$696,876	\$693,976	\$146,075	\$538,169	\$9,732	\$2,900
Other Passenger	\$40,579	\$19,215	\$14,584	\$4,631	\$0	\$21,364
Parking	\$42,164	\$42,164	\$0	\$42,164	\$0	\$0
Advertising	\$24,000	\$24,000	\$16,080	\$7,920	\$0	\$0
Joint Development	\$8,000	\$8,000	\$0	\$8,000	\$0	\$0
Fiber Optics	\$15,600	\$15,600	\$0	\$15,600	\$0	\$0
Other	\$17,781	\$11,278	\$5,639	\$5,639	\$0	\$6,503
Interest	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total Revenues</b>	<b>\$845,000</b>	<b>\$814,233</b>	<b>\$182,378</b>	<b>\$622,123</b>	<b>\$9,732</b>	<b>\$30,767</b>
<b>EXPENSES</b>						
Personnel	\$1,307,859	\$1,301,074	\$550,251	\$741,941	\$8,882	\$6,785
Services	\$293,871	\$272,214	\$62,310	\$105,345	\$104,559	\$21,657
Materials & Supplies	\$100,860	\$100,683	\$39,192	\$60,790	\$701	\$177
Fuel (Gas/Diesel/CNG)	\$32,849	\$30,744	\$23,555	\$2,075	\$5,113	\$2,105
Utilities & Propulsion	\$87,664	\$87,664	\$15,425	\$71,670	\$569	\$0
Casualty & Liability	\$28,560	\$28,560	\$11,081	\$16,936	\$543	\$0
Leases & Rentals	\$8,329	\$8,329	\$2,255	\$5,196	\$878	\$0
Miscellaneous	\$5,046	\$5,004	\$1,441	\$3,505	\$58	\$42
Capital Allocation	(\$40,493)	(\$40,493)	(\$15,711)	(\$24,012)	(\$769)	\$0
<b>Total Expenses</b>	<b>\$1,824,545</b>	<b>\$1,793,778</b>	<b>\$689,799</b>	<b>\$983,447</b>	<b>\$120,533</b>	<b>\$30,767</b>
<b>Net Subsidy</b>	<b>\$979,545</b>	<b>\$979,545</b>	<b>\$507,421</b>	<b>\$361,323</b>	<b>\$110,801</b>	<b>\$0</b>
Cost Recovery Ratio		45%	26%	63%	8%	

## ATTACHMENT F:

FISCAL YEAR 2018 BUDGET  
SUMMARY OF STATE/LOCAL OPERATING REQUIREMENTS

	Total	District of Columbia	Montgomery County	Prince George's County	City of Alexandria	Arlington County	City of Fairfax	Fairfax County	City of Falls Church
<b>Metrobus Operating Subsidy</b>									
Regional Bus Subsidy	\$438,883,944	\$186,602,264	\$63,432,473	\$75,660,251	\$19,229,240	\$33,447,554	\$664,549	\$58,211,266	\$1,636,347
Non-Regional Bus Subsidy	\$68,536,922	\$29,466,821	\$7,768,082	\$21,165,430	\$2,761,757	\$1,941,083	\$0	\$5,433,750	\$0
Subtotal	\$507,420,866	\$216,069,084	\$71,200,554	\$96,825,681	\$21,990,997	\$35,388,637	\$664,549	\$63,645,015	\$1,636,347
Percent of Total	100%	42.6%	14.0%	19.1%	4.3%	7.0%	0.1%	12.5%	0.3%
<b>Metrorail Operating Subsidy</b>									
Base Allocation	\$353,346,841	\$122,099,942	\$64,806,946	\$56,536,812	\$17,131,871	\$34,424,429	\$1,122,668	\$56,306,502	\$917,670
Max Fare Subsidy	\$7,976,432	\$852,701	\$3,114,556	\$1,435,083	\$325,160	\$223,441	\$64,435	\$1,930,610	\$30,445
Subtotal	\$361,323,273	\$122,952,643	\$67,921,502	\$57,971,896	\$17,457,031	\$34,647,871	\$1,187,103	\$58,237,112	\$948,115
Percent of Total	100%	34.0%	18.8%	16.0%	4.8%	9.6%	0.3%	16.1%	0.3%
<b>MetroAccess Subsidy</b>									
Percent of Total	\$110,801,107	\$25,536,904	\$22,233,130	\$47,561,043	\$831,639	\$831,057	\$306,393	\$13,416,605	\$84,335
	100%	23.0%	20.1%	42.9%	0.8%	0.8%	0.3%	12.1%	0.1%
<b>Net Operating Subsidy</b>									
	\$979,545,246	\$364,558,631	\$161,355,187	\$202,358,620	\$40,279,668	\$70,867,564	\$2,158,046	\$135,298,733	\$2,668,797
	100%	37.2%	16.5%	20.7%	4.1%	7.2%	0.2%	13.8%	0.3%
Metro Matters Debt Service	\$21,177,944	\$10,673,684	\$4,945,050	\$5,506,266	\$0	\$0	\$0	\$0	\$52,944
Total Debt Service	\$21,177,944	\$10,673,684	\$4,945,050	\$5,506,266	\$0	\$0	\$0	\$0	\$52,944
<b>Jurisdictional Operating Funding</b>									
	\$1,000,723,190	\$375,232,315	\$166,300,237	\$207,864,886	\$40,279,668	\$70,867,564	\$2,158,046	\$135,298,733	\$2,721,742

## Attachment G-1:

## FY2018-2023 Capital Improvement Program by Category

\$ in millions

Investment by Category	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	Total
<b>Railcars</b>	\$527.8	\$522.5	\$503.4	\$548.3	\$207.2	\$225.3	<b>\$2,534.5</b>
<b>Rail Systems</b>	\$126.6	\$170.7	\$166.7	\$136.9	\$138.8	\$118.3	<b>\$858.0</b>
<b>Track &amp; Structures Rehabilitation</b>	\$112.6	\$108.6	\$111.2	\$124.0	\$141.9	\$161.4	<b>\$759.7</b>
<b>Stations &amp; Passenger Facilities</b>	\$190.5	\$274.2	\$235.8	\$240.0	\$254.3	\$229.8	<b>\$1,424.5</b>
<b>Bus &amp; Paratransit</b>	\$211.1	\$150.2	\$205.4	\$228.0	\$231.3	\$243.9	<b>\$1,270.0</b>
<b>Business Support</b>	\$81.5	\$52.4	\$51.3	\$49.9	\$50.4	\$50.8	<b>\$336.3</b>
<b>TOTAL CIP</b>	<b>\$1,250.0</b>	<b>\$1,278.6</b>	<b>\$1,273.8</b>	<b>\$1,327.1</b>	<b>\$1,024.0</b>	<b>\$1,029.5</b>	<b>\$7,183.0</b>

**Attachment G-2:**  
**FY2018-2023 Capital Improvement Program Funding Sources**

<i>\$ in millions</i>	<b>FY2018</b>	<b>FY2019</b>	<b>FY2020</b>	<b>FY2021</b>	<b>FY2022</b>	<b>FY2023</b>	<b>Total</b>
<b>Federal</b>							
Federal Formula Programs	\$301.1	\$302.7	\$302.7	\$302.7	\$302.7	\$302.7	\$1,814.4
Federal PRIIA	148.5	148.5	148.5	148.5	148.5	148.5	891.0
Other Federal Grants	10.8	9.5	7.2	7.8	8.0	8.3	51.6
Subtotal Federal	460.5	460.7	458.4	458.9	459.2	459.5	2,757.1
<b>State and Local</b>							
Match to Federal Formula	75.5	76.3	76.0	77.4	75.8	75.9	456.9
System Performance	135.0	344.8	421.8	419.0	293.7	269.8	1,884.0
State and Local PRIIA	148.5	148.5	148.5	148.5	148.5	148.5	891.0
Other State and Local	15.3	4.5	3.9	4.0	4.1	4.2	36.0
Subtotal State and Local	374.4	574.0	650.1	649.0	522.1	498.3	3,267.9
<b>MWAA</b>	118.2	33.2	32.2	69.2	35.2	5.0	293.0
<b>Other</b>	6.0	8.0	1.0				15.0
<b>Long-Term Financing</b>	291.0	202.7	132.1	150.0	7.5	66.7	850.0
<b>Total</b>	<b>\$1,250.0</b>	<b>\$1,278.6</b>	<b>\$1,273.8</b>	<b>\$1,327.1</b>	<b>\$1,024.0</b>	<b>\$1,029.5</b>	<b>\$7,183.0</b>
<b>Financing Authorized in Prior Years</b>	<b>\$208.3</b>						<b>\$208.3</b>
<b>Grand Total</b>	<b>\$1,458.3</b>	<b>\$1,278.6</b>	<b>\$1,273.8</b>	<b>\$1,327.1</b>	<b>\$1,024.0</b>	<b>\$1,029.5</b>	<b>\$7,391.3</b>

**Attachment G-2:**  
**FY2018-2023 Capital Improvement Program Funding Sources**

<i>\$ in millions</i>	<b>FY2018</b>	<b>FY2019</b>	<b>FY2020</b>	<b>FY2021</b>	<b>FY2022</b>	<b>FY2023</b>	<b>Total</b>
<b>Federal</b>							
Federal Formula Programs	\$301.1	\$302.7	\$302.7	\$302.7	\$302.7	\$302.7	\$1,814.4
Federal PRIIA	148.5	148.5	148.5	148.5	148.5	148.5	891.0
Other Federal Grants	10.8	9.5	7.2	7.8	8.0	8.3	51.6
Subtotal Federal	460.5	460.7	458.4	458.9	459.2	459.5	2,757.1
<b>State and Local</b>							
Match to Federal Formula	75.5	76.3	76.0	77.4	75.8	75.9	456.9
System Performance	135.0	344.8	421.8	419.0	293.7	269.8	1,884.0
State and Local PRIIA	148.5	148.5	148.5	148.5	148.5	148.5	891.0
Other State and Local	15.3	4.5	3.9	4.0	4.1	4.2	36.0
Subtotal State and Local	374.4	574.0	650.1	649.0	522.1	498.3	3,267.9
<b>MWAA</b>	118.2	33.2	32.2	69.2	35.2	5.0	293.0
<b>Other</b>	6.0	8.0	1.0				15.0
<b>Long-Term Financing</b>	291.0	202.7	132.1	150.0	7.5	66.7	850.0
<b>Total</b>	<b>\$1,250.0</b>	<b>\$1,278.6</b>	<b>\$1,273.8</b>	<b>\$1,327.1</b>	<b>\$1,024.0</b>	<b>\$1,029.5</b>	<b>\$7,183.0</b>
<b>Financing Authorized in Prior Years</b>	<b>\$208.3</b>						<b>\$208.3</b>
<b>Grand Total</b>	<b>\$1,458.3</b>	<b>\$1,278.6</b>	<b>\$1,273.8</b>	<b>\$1,327.1</b>	<b>\$1,024.0</b>	<b>\$1,029.5</b>	<b>\$7,391.3</b>

**Attachment G-3:**  
**CIP Financial Plan - Allocation of State & Local Contributions**

(\$ in millions)	FY2018 Budget	FY2019 Plan	FY2020 Plan	FY2021 Plan	FY2022 Plan	FY2023 Plan	6 Year Total
<b>Federal Formula Match &amp; System Performance</b>							
<b>District of Columbia</b>	<b>\$76.1</b>	<b>\$152.2</b>	<b>\$179.9</b>	<b>\$179.4</b>	<b>\$133.5</b>	<b>\$124.9</b>	<b>845.9</b>
Montgomery County	37.1	74.1	87.6	87.4	65.0	60.8	412.0
Prince George's County	36.1	72.1	85.3	85.0	63.3	59.2	400.9
<b>Maryland Subtotal</b>	<b>73.1</b>	<b>146.2</b>	<b>172.9</b>	<b>172.4</b>	<b>128.3</b>	<b>120.0</b>	<b>813.0</b>
City of Alexandria	9.8	19.6	23.2	23.1	17.2	16.1	109.0
Arlington County	18.6	37.2	44.0	43.8	32.6	30.5	206.7
City of Fairfax	0.58	1.2	1.4	1.4	1.0	1.0	6.5
Fairfax County	31.8	63.6	75.1	74.9	55.8	52.2	353.4
City of Falls Church	0.58	1.2	1.4	1.4	1.0	0.9	6.4
<b>Virginia Subtotal</b>	<b>61.3</b>	<b>122.7</b>	<b>145.0</b>	<b>144.6</b>	<b>107.7</b>	<b>100.7</b>	<b>682.0</b>
<b>Subtotal Federal Formula Match &amp; System Performance</b>	<b>210.5</b>	<b>421.1</b>	<b>497.7</b>	<b>496.4</b>	<b>369.5</b>	<b>345.7</b>	<b>2,340.9</b>
<b>State and Local PRIIA</b>							
District of Columbia	49.5	49.5	49.5	49.5	49.5	49.5	297.0
State of Maryland	49.5	49.5	49.5	49.5	49.5	49.5	297.0
Commonwealth of Virginia	49.5	49.5	49.5	49.5	49.5	49.5	297.0
<b>Subtotal State and Local PRIIA</b>	<b>148.5</b>	<b>148.5</b>	<b>148.5</b>	<b>148.5</b>	<b>148.5</b>	<b>148.5</b>	<b>891.0</b>
<b>Other State and Local</b>							
<b>District of Columbia</b>	<b>1.1</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>6.1</b>
Montgomery County	0.1						0.1
Prince George's County	0.1						0.1
State of Maryland	5.0	1.0	1.0	1.0	1.0	1.0	10.0
<b>Maryland Subtotal</b>	<b>5.1</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>10.1</b>
DRPT (CMAQ Match)	1.4	1.5	0.9	1.0	1.1	1.2	7.1
City of Alexandria	6.8	0.2	0.2	0.2	0.2	0.2	7.6
Arlington County	0.3	0.3	0.3	0.3	0.3	0.3	1.8
City of Fairfax	0.01	0.01	0.01	0.01	0.01	0.01	0.1
Fairfax County	0.6	0.5	0.5	0.5	0.5	0.5	3.2
City of Falls Church	0.01	0.01	0.01	0.01	0.01	0.01	0.1
Commonwealth of Virginia							
<b>Virginia Subtotal</b>	<b>9.1</b>	<b>2.5</b>	<b>1.9</b>	<b>2.0</b>	<b>2.1</b>	<b>2.2</b>	<b>19.8</b>
<b>Subtotal Other State and Local</b>	<b>15.3</b>	<b>4.5</b>	<b>3.9</b>	<b>4.0</b>	<b>4.1</b>	<b>4.2</b>	<b>36.0</b>
<b>Total Contributions before Debt</b>	<b>\$374.4</b>	<b>\$574.0</b>	<b>\$650.1</b>	<b>\$649.0</b>	<b>\$522.1</b>	<b>\$498.3</b>	<b>\$3,267.9</b>
<b>Additional Contribution or Debt (Including Financing Authorized in Prior Years)</b>							
<b>District of Columbia</b>	<b>182.6</b>	<b>73.2</b>	<b>47.7</b>	<b>54.2</b>	<b>2.7</b>	<b>24.1</b>	<b>384.7</b>
Montgomery County	86.6	35.7	23.3	26.4	1.3	11.7	185.0
Prince George's County	86.7	34.7	22.6	25.7	1.3	11.4	182.5
<b>Maryland Subtotal</b>	<b>173.3</b>	<b>70.4</b>	<b>45.9</b>	<b>52.1</b>	<b>2.6</b>	<b>23.2</b>	<b>367.5</b>
City of Alexandria	22.9	9.4	6.2	7.0	0.4	3.1	48.9
Arlington County	43.1	17.9	11.7	13.2	0.7	5.9	92.5
City of Fairfax	1.4	0.6	0.4	0.4	0.0	0.2	3.0
Fairfax County	74.4	30.6	19.9	22.6	1.1	10.1	158.8
City of Falls Church	1.5	0.6	0.4	0.4	0.0	0.2	3.0
Commonwealth of Virginia							
<b>Virginia Subtotal</b>	<b>143.3</b>	<b>59.1</b>	<b>38.5</b>	<b>43.7</b>	<b>2.2</b>	<b>19.4</b>	<b>306.2</b>
<b>Total Debt (or Opt-Out)</b>	<b>\$499.3</b>	<b>\$202.7</b>	<b>\$132.1</b>	<b>\$150.0</b>	<b>\$7.5</b>	<b>\$66.7</b>	<b>\$1,058.3</b>
<b>Grand Total State and Local Funding with Debt</b>	<b>\$873.6</b>	<b>\$776.7</b>	<b>\$782.2</b>	<b>\$799.0</b>	<b>\$529.6</b>	<b>\$565.0</b>	<b>\$4,326.2</b>

Washington Metropolitan Area Transit Authority

## Board Action/Information Summary

☒ Action ☐ Information

 MEAD Number:  
201867

 Resolution:  
☒ Yes ☐ No

### TITLE:

Authorization for Debt Issuance

### PRESENTATION SUMMARY:

Staff will seek Board authorization to increase Metro's 2017 long-term debt issuance by \$75.9 million in support of Metro's Capital Improvement Program (CIP).

### PURPOSE:

The authorization seeks Board approval to increase the issuance of authorized Series 2017 long-term bonds by \$75.9 million.

### DESCRIPTION:

#### Key Highlights:

The \$75.9 million represents unfunded capital investment carry-over from the FY2011-2016 CFA which included \$440 million of debt financing. Metro issued only \$220 million of Series 2016 short-term bonds to fund capital projects, but expended \$75.9 million more over the FY2011-2016 period using Metro's Line of Credit. This repayment would enable Metro to reduce its outstanding Line of Credit.

The proposed resolution for this action includes amendments to the FY2018 budget resolution, the Capital Funding Agreement (CFA), and the District of Columbia Local Funding Agreement (DCLFA) to reflect the updated debt issuance amount.

#### Background and History:

The original debt issuance proposal presented to the Finance Committee on March 9, 2017, totaled \$575.2 million and included \$75.9 million to address the issue described above. The Committee approved \$499.3 million of that total and deferred action on the \$75.9 million, pending further review of the CFA reconciliation requested by representatives of the State of Maryland. The State of Maryland is now in support of the issuance of \$75.9 million and requests it be added to the long-term debt issuance authorized by the Board of Directors on March 23, 2017.

With the approval of this action, the total principal amount for the Series 2017 offering will increase to a not-to-exceed figure of \$575.2 million.

**Discussion:**

The \$75.9 million represents unfunded capital investment carry-over from the FY2011-2016 CFA which included \$440 million of debt financing. Metro issued only \$220 million of Series 2016 short-term bonds to fund capital projects, but expended \$75.9 million more over the FY2011-2016 period using Metro's Line of Credit. This repayment would enable Metro to reduce its outstanding Line of Credit.

**FUNDING IMPACT:**

This action will increase Metro's long-term cash flow and ensure continued support for the capital program.

**TIMELINE:**

Previous Actions	March 23, 2017: Board approval to issue \$499.3 million of long-term debt.
Anticipated actions after presentation	The requested \$75.9 million, if approved, will be included with the original \$499.3 million long-term debt for a total amount not to exceed \$575.2 million.

**RECOMMENDATION:**

Approve increasing the amount of authorized Series 2017 long-term bonds issuance by \$75.9 million.

**SUBJECT: AMENDMENT TO INCREASE 2017 BONDS TO A PRINCIPAL AMOUNT NOT TO EXCEED \$575.2 MILLION AND TO MAKE CONFORMING AMENDMENTS TO RESOLUTIONS 2017-11 AND 2017-12**

**2017-21**

**RESOLUTION  
OF THE  
BOARD OF DIRECTORS  
OF THE  
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY**

WHEREAS, In Resolution 2017-13, the Board of Directors authorized staff to negotiate bonds for capital projects in an amount not to exceed \$499.3 million; and

WHEREAS, It is the intent of WMATA to reimburse itself for eligible expenses incurred before the issuance of the bonds covered in this Resolution to the extent permitted by the Internal Revenue Code of 1986 and regulations issued under such Code; and

WHEREAS, Pursuant to the Capital Funding Agreement, staff sent 120-day opt-out letters for the \$499.3 million proposed bond offering to the jurisdictions, which, subject to Board approval, included an option to include the additional \$75.9 million in the forthcoming bond issue; and

WHEREAS, Staff now recommends that the amount of the bonds authorized in Resolution 2017-13 be increased by \$75.9 million to address capital amounts not paid through the Series 2016 Bonds or by jurisdictional contributions; and

WHEREAS, This recommendation will require conforming changes to the FY2018 Capital Budget Attachments G-2 and G-3 as passed in Resolution 2017-11, the Second Amendment to the Capital Funding Agreement, and the Second Amendment to the District of Columbia Local Capital Funding Agreement; now therefore be it

**RESOLVED**, That the Board of Directors approves the increase in the amount of bonds authorized in Resolution 2017-13 from \$499.3 million to an amount not to exceed \$575.2 million in principal, excluding any required debt service reserve and the costs of issuance (including but not limited to underwriters' fees, financial advisory fees, printing costs, legal fees, and such other fees which the GM/CEO or the CFO deem necessary to complete the sale of such bonds), all of such expenses, costs, and fees being authorized by the Board to be included in the bond issuance in addition to the aggregate principal amount listed above; and be it further

*RESOLVED*, That since the 120-day opt-out letter issued to the jurisdictions on March 30, 2017, included this \$75.9 million as a potential part of the issuance, this Resolution does not restart the 120-day opt-out period; and be it further

*RESOLVED*, That all other terms and conditions contained in Resolution 2017-13 shall remain in full force and effect; and be it further

*RESOLVED*, That Resolution 2017-11 Attachments G-2 and G-3 are amended to read as shown in Attachments A and B, respectively, to this Resolution; and be it further

*RESOLVED*, That section 2 of both Attachment A and Attachment B to Resolution 2017-12 are amended to read as shown in Attachments C and D, respectively, to this Resolution; and be it further

*RESOLVED*, That Attachment A to the Capital Funding Agreement and to the District of Columbia Local Capital Funding Agreement are each amended to read as shown in Attachment E to this Resolution; and be it finally

*RESOLVED*, That in order to meet the schedule for bond issuance, this Resolution shall be effective immediately.

Reviewed as to form and legal sufficiency,



Patricia Y. Lee  
General Counsel

WMATA File Structure No.:  
4.1 Bonds

## Attachment G-2:

**FY2018-2023 Capital Improvement Program Funding Sources**  
**AMENDED TO INCLUDE ADDITIONAL PRIOR YEAR FINANCING**

<i>\$ in millions</i>	<b>FY2018</b>	<b>FY2019</b>	<b>FY2020</b>	<b>FY2021</b>	<b>FY2022</b>	<b>FY2023</b>	<b>Total</b>
<b>Federal</b>							
Federal Formula Programs	\$301.1	\$302.7	\$302.7	\$302.7	\$302.7	\$302.7	\$1,814.4
Federal PRIIA	148.5	148.5	148.5	148.5	148.5	148.5	891.0
Other Federal Grants	10.8	9.5	7.2	7.8	8.0	8.3	51.6
Subtotal Federal	460.5	460.7	458.4	458.9	459.2	459.5	2,757.1
<b>State and Local</b>							
Match to Federal Formula	75.5	76.3	76.0	77.4	75.8	75.9	456.9
System Performance	135.0	344.8	421.8	419.0	293.7	269.8	1,884.0
State and Local PRIIA	148.5	148.5	148.5	148.5	148.5	148.5	891.0
Other State and Local	15.3	4.5	3.9	4.0	4.1	4.2	36.0
Subtotal State and Local	374.4	574.0	650.1	649.0	522.1	498.3	3,267.9
<b>MWAA</b>	118.2	33.2	32.2	69.2	35.2	5.0	293.0
<b>Other</b>	6.0	8.0	1.0				15.0
<b>Long-Term Financing</b>	291.0	202.7	132.1	150.0	7.5	66.7	850.0
<b>Total</b>	<b>\$1,250.0</b>	<b>\$1,278.6</b>	<b>\$1,273.8</b>	<b>\$1,327.1</b>	<b>\$1,024.0</b>	<b>\$1,029.5</b>	<b>\$7,183.0</b>
<b>Financing Authorized in Prior Years</b>	<b>\$284.2</b>						<b>\$284.2</b>
<b>Grand Total</b>	<b>\$1,534.2</b>	<b>\$1,278.6</b>	<b>\$1,273.8</b>	<b>\$1,327.1</b>	<b>\$1,024.0</b>	<b>\$1,029.5</b>	<b>\$7,467.2</b>

**Attachment G-3:**  
**CIP Financial Plan - Allocation of State & Local Contributions**  
**AMENDED TO INCLUDE ADDITIONAL PRIOR YEAR FINANCING**

(\$ in millions)	FY2018 Budget	FY2019 Plan	FY2020 Plan	FY2021 Plan	FY2022 Plan	FY2023 Plan	6 Year Total
<b>Federal Formula Match &amp; System Performance</b>							
<b>District of Columbia</b>	<b>\$76.1</b>	<b>\$152.2</b>	<b>\$179.9</b>	<b>\$179.4</b>	<b>\$133.5</b>	<b>\$124.9</b>	<b>845.9</b>
Montgomery County	37.1	74.1	87.6	87.4	65.0	60.8	412.0
Prince George's County	36.1	72.1	85.3	85.0	63.3	59.2	400.9
<b>Maryland Subtotal</b>	<b>73.1</b>	<b>146.2</b>	<b>172.9</b>	<b>172.4</b>	<b>128.3</b>	<b>120.0</b>	<b>813.0</b>
City of Alexandria	9.8	19.6	23.2	23.1	17.2	16.1	109.0
Arlington County	18.6	37.2	44.0	43.8	32.6	30.5	206.7
City of Fairfax	0.6	1.2	1.4	1.4	1.0	1.0	6.5
Fairfax County	31.8	63.6	75.1	74.9	55.8	52.2	353.4
City of Falls Church	0.6	1.2	1.4	1.4	1.0	0.9	6.4
<b>Virginia Subtotal</b>	<b>61.3</b>	<b>122.7</b>	<b>145.0</b>	<b>144.6</b>	<b>107.7</b>	<b>100.7</b>	<b>682.0</b>
<b>Subtotal Federal Formula Match &amp; System Performance</b>	<b>210.548</b>	<b>421.1</b>	<b>497.7</b>	<b>496.4</b>	<b>369.5</b>	<b>345.7</b>	<b>2,340.9</b>
<b>State and Local PRIIA</b>							
District of Columbia	49.5	49.5	49.5	49.5	49.5	49.5	297.0
State of Maryland	49.5	49.5	49.5	49.5	49.5	49.5	297.0
Commonwealth of Virginia	49.5	49.5	49.5	49.5	49.5	49.5	297.0
<b>Subtotal State and Local PRIIA</b>	<b>148.500</b>	<b>148.5</b>	<b>148.5</b>	<b>148.5</b>	<b>148.5</b>	<b>148.5</b>	<b>891.0</b>
<b>Other State and Local</b>							
<b>District of Columbia</b>	<b>1.1</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>6.1</b>
Montgomery County	0.1						0.1
Prince George's County	0.1						0.1
State of Maryland	5.0	1.0	1.0	1.0	1.0	1.0	10.0
<b>Maryland Subtotal</b>	<b>5.1</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>10.1</b>
DRPT (CMAQ Match)	1.4	1.5	0.9	1.0	1.1	1.2	7.1
City of Alexandria	6.8	0.2	0.2	0.2	0.2	0.2	7.6
Arlington County	0.3	0.3	0.3	0.3	0.3	0.3	1.8
City of Fairfax	0.01	0.01	0.01	0.01	0.01	0.01	0.1
Fairfax County	0.6	0.5	0.5	0.5	0.5	0.5	3.2
City of Falls Church	0.01	0.01	0.01	0.01	0.01	0.01	0.1
Commonwealth of Virginia							
<b>Virginia Subtotal</b>	<b>9.1</b>	<b>2.5</b>	<b>1.9</b>	<b>2.0</b>	<b>2.1</b>	<b>2.2</b>	<b>19.8</b>
<b>Subtotal Other State and Local</b>	<b>15.326</b>	<b>4.5</b>	<b>3.9</b>	<b>4.0</b>	<b>4.1</b>	<b>4.2</b>	<b>36.0</b>
<b>Total Contributions before Debt</b>	<b>\$374.4</b>	<b>\$574.0</b>	<b>\$650.1</b>	<b>\$649.0</b>	<b>\$522.1</b>	<b>\$498.3</b>	<b>\$3,267.9</b>
<b>Additional Contribution or Debt (Including Financing Authorized in Prior Years)</b>							
<b>District of Columbia</b>	<b>211.4</b>	<b>73.2</b>	<b>47.7</b>	<b>54.2</b>	<b>2.7</b>	<b>24.1</b>	<b>413.4</b>
Montgomery County	100.1	35.7	23.3	26.4	1.3	11.7	198.5
Prince George's County	101.1	34.7	22.6	25.7	1.3	11.4	196.8
<b>Maryland Subtotal</b>	<b>201.1</b>	<b>70.4</b>	<b>45.9</b>	<b>52.1</b>	<b>2.6</b>	<b>23.2</b>	<b>395.3</b>
City of Alexandria	24.6	9.4	6.2	7.0	0.4	3.1	50.6
Arlington County	49.3	17.9	11.7	13.2	0.7	5.9	98.7
City of Fairfax	1.5	0.6	0.4	0.4	0.0	0.2	3.1
Fairfax County	85.5	30.6	19.9	22.6	1.1	10.1	169.9
City of Falls Church	1.8	0.6	0.4	0.4	0.0	0.2	3.3
Commonwealth of Virginia							
<b>Virginia Subtotal</b>	<b>162.7</b>	<b>59.1</b>	<b>38.5</b>	<b>43.7</b>	<b>2.2</b>	<b>19.4</b>	<b>325.6</b>
<b>Total Debt (or Opt-Out)</b>	<b>\$575.2</b>	<b>\$202.7</b>	<b>\$132.1</b>	<b>\$150.0</b>	<b>\$7.5</b>	<b>\$66.7</b>	<b>\$1,134.2</b>
<b>Grand Total State and Local Funding with Debt</b>	<b>\$949.6</b>	<b>\$776.7</b>	<b>\$782.2</b>	<b>\$799.0</b>	<b>\$529.6</b>	<b>\$565.0</b>	<b>\$4,402.2</b>

**SECOND AMENDMENT TO THE  
CAPITAL FUNDING AGREEMENT**

**Among**

**The State of Maryland;**

**The District of Columbia;**

**Arlington County, Virginia;**

**Fairfax County, Virginia;**

**The City of Alexandria, Virginia;**

**The City of Fairfax, Virginia;**

**The City of Falls Church, Virginia;**

**And**

**The Washington Metropolitan Area Transit Authority**

**Effective Date: \_\_\_\_\_**

## SECOND AMENDMENT TO THE CAPITAL FUNDING AGREEMENT

THIS SECOND AMENDMENT TO THE CAPITAL FUNDING AGREEMENT (Second Amendment) is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 2017, by and among **the Washington Metropolitan Area Transit Authority (WMATA)**, a body corporate and politic created by interstate compact between Maryland, Virginia, and the District of Columbia; **the State of Maryland, acting by and through the Washington Suburban Transit District and the Department of Transportation; the District of Columbia; Arlington County, Virginia; Fairfax County, Virginia; the City of Alexandria, Virginia; the City of Fairfax, Virginia; and the City of Falls Church, Virginia (Contributing Jurisdictions and, collectively with WMATA, the Parties):**

### RECITALS

1. The Parties to this Second Amendment desire to extend the term of that Capital Funding Agreement entered into by the Parties as of July 1, 2010 and previously extended to include WMATA Fiscal Year 2017 (CFA).
2. The Parties to this Second Amendment desire to continue the funding and work of WMATA on the same terms and conditions currently in place under the CFA as amended by the First Amendment to the CFA for an additional year (the Extension Term).
3. The Parties will continue to negotiate in good faith toward a longer-term capital funding agreement during the Extension Term.

NOW, THEREFORE, in consideration of the mutual promises and obligations hereinafter set forth, the Parties hereby agree as follows:

## **SEC. 1 DEFINITIONS**

Unless defined otherwise in this Second Amendment all terms used in this Second Amendment shall have the same meaning as is found in the CFA.

## **SEC. 2 EXTENSION OF TERM AND AMENDMENT OF LONG TERM DEBT OBLIGATIONS**

Pursuant to Section 11 of the CFA, the Parties agree to extend the term of the CFA for one additional year, from July 1, 2017 through June 30, 2018 (FY2018) on the same terms and conditions agreed to under the CFA as amended by the First Amendment to the CFA. The maximum amount of long-term debt authorized for issuance in FY2018 in support of the FY2018 Capital Improvement Program shall not exceed \$575.2 million. The Parties acknowledge and agree that this debt issuance will be approved by the Jurisdictions pursuant to the opt-out provisions of the CFA. In the event that WMATA desires to issue additional debt during FY2018, WMATA shall follow the processes established for such issuance in the CFA. Additionally, WMATA may also choose to refinance the existing Gross Revenue Transit Bonds Series 2009A and 2009B provided that the jurisdictional debt service amounts will be no greater than the existing amounts covering these bonds. If a Contributing Jurisdiction elected to pre-pay its portion of the Gross Revenue Transit Bonds Series 2009A or 2009B pursuant to Section 4(b)(2)(C) of the CFA that Contributing Jurisdiction shall not be responsible for costs, debt service, or other amounts related to the refunded Gross Revenue Transit Bonds Series 2009A or 2009B.

**SEC. 3 CAPITAL IMPROVEMENT PROGRAM**

- A. As is contemplated by the CFA as amended by the First Amendment to the CFA, it is anticipated that the WMATA Board of Directors will adopt a new Fiscal Year 2018 Capital Budget on or before June 30, 2017. It is the intent of the Parties that the CFA be automatically amended to incorporate the FY2018 Capital Budget as adopted by the Board so long as the Allocated Contributions in the FY2018 Annual Work Plan do not exceed \$210.5 million exclusive of long-term debt and PRIIA matching funds in Attachment A.
- B. Attachment A contains the FY2018 Capital Budget, representing a summary of the FY2018 Annual Work Plan.
- C. The District of Columbia's Allocated Contribution to the FY2018 Capital Budget shall not exceed \$76.1 million and this amount shall be added to the amounts contained in Section 4(b)(1)(C)(i) of the CFA and the First Amendment to the CFA to constitute the new limitation on required Allocated Contributions for the District of Columbia in the total maximum amount not to exceed \$565,514,000 to be paid from the District of Columbia Capital Funds.
- D. It is the intent of the Parties that to the extent that WMATA undertakes multi-year projects in the FY2018 Annual Work Plan, adopted by this Second Amendment, such projects shall be continued in accordance with the provisions of Section 2(e) of the CFA.

**SEC. 4 CONTINUING EFFECT**

This Second Amendment amends certain terms and conditions of the CFA. All other terms and conditions of the CFA as amended by the First Amendment to the CFA that are not modified by this Second Amendment shall remain in full force and effect. Should there be any

conflict between the terms and conditions in this Second Amendment and the CFA as amended by the First Amendment the terms and conditions of this Second Amendment, and in the case of the District of Columbia the Second Amendment to the Local Capital Funding Agreement, shall control.

**SEC. 5 COUNTERPARTS**

This Amendment may be executed in identical counterparts, each of which shall constitute an original and all of which shall constitute, collectively, one agreement. The counterpart with the most recent date shall determine the date of entry of this Agreement by the Parties.

IN WITNESS WHEREOF, WMATA and the Contributing Jurisdictions have executed this Amendment by their representatives' signatures below.

WASHINGTON METROPOLITAN AREA  
TRANSIT AUTHORITY

Attest:

By:

\_\_\_\_\_  
Secretary

\_\_\_\_\_[Seal]  
Paul J. Wiedefeld  
General Manager/Chief Executive Officer

Dated: \_\_\_\_\_

Approved as to Form and Legal Sufficiency:

By: \_\_\_\_\_  
Office of General Counsel

[signatures continued on following page]

STATE OF MARYLAND  
acting by and through the Washington Suburban Transit District and the Department of  
Transportation

MARYLAND DEPARTMENT OF  
TRANSPORTATION

Attest:

\_\_\_\_\_  
Witness By: \_\_\_\_\_[Seal]  
Secretary

and

WASHINGTON SUBURBAN  
TRANSIT DISTRICT

Attest:

\_\_\_\_\_  
Witness By: \_\_\_\_\_[Seal]  
Chairman

Approved as to Form and Legal Sufficiency:

By: \_\_\_\_\_  
Assistant Attorney General

Date: \_\_\_\_\_

[signatures continued on following page]

/

DISTRICT OF COLUMBIA

Attest:

\_\_\_\_\_  
Witness

By: \_\_\_\_\_ [[Seal]  
Mayor

Approved as to Form and Legal Sufficiency:

By: \_\_\_\_\_  
Attorney General

Dated: \_\_\_\_\_

[signatures continued on following page]

COUNTY BOARD OF ARLINGTON  
COUNTY, VIRGINIA

Attest:

\_\_\_\_\_  
Witness

By: \_\_\_\_\_[Seal]  
County Manager  
Arlington County, Virginia

Approved as to Form and Legal Sufficiency:

By: \_\_\_\_\_  
Arlington County Attorney

Dated: \_\_\_\_\_

[signatures continued on following page]

FAIRFAX COUNTY, VIRGINIA

Attest:

\_\_\_\_\_  
Clerk to the Board of Supervisors

By: \_\_\_\_\_ [Seal]  
County Executive  
Fairfax County, Virginia

Approved as to Form and Legal Sufficiency:

By: \_\_\_\_\_  
County Attorney

Dated: \_\_\_\_\_

[signatures continued on following page]

CITY OF ALEXANDRIA, VIRGINIA

Attest:

\_\_\_\_\_  
City Clerk

By: \_\_\_\_\_ [Seal]  
City Manager

Approved as to Form and Legal Sufficiency:

By: \_\_\_\_\_  
City Attorney

Dated: \_\_\_\_\_

[signatures continued on following page]

CITY OF FAIRFAX, VIRGINIA

Attest:

\_\_\_\_\_  
City Clerk

By: \_\_\_\_\_[Seal]  
City Manager

Approved as to Form and Legal Sufficiency:

By: \_\_\_\_\_  
City Attorney

Dated: \_\_\_\_\_

[signatures continued on following page]

CITY OF FALLS CHURCH, VIRGINIA

Attest:

\_\_\_\_\_  
City Clerk

By: \_\_\_\_\_ [Seal]  
City Manager

Approved as to Form and Legal Sufficiency:

By: \_\_\_\_\_  
City Attorney

Dated: \_\_\_\_\_

**Attachment A**  
**Washington Metropolitan Area Transit Authority**  
FY2018 Capital Improvement Program (CIP) Financial Plan

\$ in Millions	Total	District of Columbia	State of Maryland	City of Alexandria	Arlington County	City of Fairfax	Fairfax County	City of Falls Church	DRPT CMAQ Match	Commonwealth of Virginia
Allocated State and Local	210.5	76.1	73.1	9.8	18.6	0.6	31.8	0.6		
FY2011-2016 CFA Reconciliation Payback	75.9	28.8	27.6	1.7	6.2	0.2	11.0	0.3		
FY2017 Authorized Debt	58.3	21.7	20.3	2.6	4.9	0.2	8.5	0.2		
FY2017 LOC Payback	150.0	55.8	52.1	6.7	12.5	0.4	22.0	0.5		
FY2018 Debt	291.0	105.2	101.1	13.6	25.7	0.8	43.9	0.8		
Subtotal - Allocated Contributions Incl. Debt	785.7	287.5	274.2	34.4	67.9	2.1	117.3	2.3	0.0	0.0
Federal	460.5									
PRIIA Match	148.5	49.5	49.5							49.5
Other State and Local	15.3	1.1	5.1	6.8	0.3	0.01	0.6	0.01	1.4	
MWAA	118.2									
Other	6.0									
Subtotal - Other CIP Funding	748.5	50.6	54.6	6.8	0.3	0.0	0.6	0.0	1.4	49.5
<b>Total</b>	<b>1,534.2</b>	<b>338.1</b>	<b>328.9</b>	<b>41.2</b>	<b>68.2</b>	<b>2.1</b>	<b>117.9</b>	<b>2.3</b>	<b>1.4</b>	<b>49.5</b>

**SECOND AMENDMENT TO THE  
LOCAL CAPITAL FUNDING AGREEMENT**

**By and Between**

**The District of Columbia**

**And**

**The Washington Metropolitan Area Transit Authority**

**SECOND AMENDMENT TO THE  
LOCAL CAPITAL FUNDING AGREEMENT**

THIS SECOND AMENDMENT TO THE LOCAL CAPITAL FUNDING AGREEMENT (Second Amendment) is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 2017, by and between **the Washington Metropolitan Area Transit Authority (WMATA)**, a body corporate and politic created by interstate compact between Maryland, Virginia, and the District of Columbia; **and the District of Columbia**, a municipal corporation (**District of Columbia**).

**RECITALS**

1. The Parties to this Second Amendment desire to extend the term of that Local Capital Funding Agreement entered into by the Parties as of July 1, 2010 and previously extended to include WMATA Fiscal Year 2017 (DC LFA).
2. The Parties to this Second Amendment desire to continue the funding and work of WMATA on the same terms and conditions currently in place under the DC LFA as amended by the First Amendment to the DC LFA for an additional year (the Extension Term).
3. The Parties will continue to negotiate in good faith toward a longer-term capital funding agreement during the Extension Term.

NOW, THEREFORE, in consideration of the mutual promises and obligations hereinafter set forth, the Parties hereby agree as follows:

**SEC. 1 DEFINITIONS**

Unless defined otherwise in this Amendment all terms used in this Amendment shall have the same meaning as is found in the DC LFA.

**SEC. 2 EXTENSION OF TERM AND AMENDMENT OF LONG TERM DEBT OBLIGATION**

Pursuant to Section 11 of the DC LFA, the Parties agree to extend the term of the DC LFA for one additional year, from July 1, 2017 through June 30, 2018 on the same terms and conditions agreed to under the DC LFA as amended by the First Amendment. The maximum amount of Long Term Debt authorized for issuance in Fiscal Year 2018 (FY18) in support of the Capital Improvement Program budget (FY18 Capital Budget) in FY18 shall not exceed \$575.2 million. The District may exercise the “opt in” provision of the CFA, and will provide operating budget for its jurisdictional share of any required debt service. For any portion of the proposed debt where the District exercises the “opt out” provision of the CFA, the District will provide funds to meet the required jurisdictional portion. In the event that WMATA desires to issue additional Long Term Debt during FY18, WMATA shall follow the processes established for such issuance in the CFA and the DC LFA. Additionally, WMATA may also choose to refinance the existing Series 2009A and 2009B bonds provided that the jurisdictional debt service amounts will be no greater than the existing amounts covering these bonds.

**SEC. 3 CAPITAL IMPROVEMENT PLAN**

A. As is contemplated by the DC LFA as amended by the First Amendment to the DC LFA, it is anticipated that the WMATA Board of Directors will adopt a new six-year CIP and Fiscal Year 2018 Capital Budget on or before June 30, 2017. It is the intent of the Parties that the DC LFA be amended to incorporate the FY18 Capital Budget and CIP as adopted by the Board so long as the Allocated Contributions in the FY18 Capital Budget does not exceed \$210,500,000 exclusive of long-term debt and PRIIA matching funds as shown in Attachment A.

B. DC's Allocated Contribution to the FY18 Capital Budget shall not exceed \$76,100,000 and this amount shall be added to the amount contained in Section 4(b)(1)(C)(i) of the DC LFA as amended by the First Amendment to constitute the new limitation on required Allocated Contributions for the District of Columbia in the total maximum amount not to exceed \$565,514,000, excluding PRIIA funding, to be paid from the District of Columbia Capital Funds.

#### **SEC. 4 CONTINUING EFFECT**

This Second Amendment amends certain terms and conditions of the DC LFA. All other terms and conditions of the DC LFA as amended by the First Amendment that are not modified by this Second Amendment shall remain in full force and effect. Should there be any conflict between the terms and conditions in this Second Amendment and the DC LFA as amended by the First Amendment the terms and conditions of this Second Amendment shall control.

#### **SEC. 5 COUNTERPARTS**

This Amendment may be executed in identical counterparts, each of which shall constitute an original and all of which shall constitute, collectively, one agreement. The counterpart with the most recent date shall determine the date of entry of this Agreement by the Parties.

IN WITNESS WHEREOF, WMATA and the District of Columbia have executed this Agreement on this \_\_\_\_\_ day of \_\_\_\_\_, 2017.

WASHINGTON METROPOLITAN AREA  
TRANSIT AUTHORITY

Attest:

By:

\_\_\_\_\_  
Board Corporate Secretary

\_\_\_\_\_[Seal]  
Paul J. Wiedefeld  
General Manager/Chief Executive Officer

Dated: \_\_\_\_\_

Approved as to Form and Legal Sufficiency:

By: \_\_\_\_\_  
Office of General Counsel

[signatures continued on following page]



DISTRICT OF COLUMBIA

Attest:

\_\_\_\_\_  
Witness

By: \_\_\_\_\_ [Seal]

Mayor

Approved as to Form and Legal Sufficiency:

By: \_\_\_\_\_  
Attorney General

Dated: \_\_\_\_\_

## Attachment A

## Washington Metropolitan Area Transit Authority

## FY2018 Capital Improvement Program (CIP) Financial Plan

\$ in Millions	Total	District of Columbia	State of Maryland	City of Alexandria	Arlington County	City of Fairfax	Fairfax County	City of Falls Church	DRPT CMAQ Match	Commonwealth of Virginia
Allocated State and Local	210.5	76.1	73.1	9.8	18.6	0.6	31.8	0.6		
FY2011-2016 CFA Reconciliation Payback	75.9	28.8	27.6	1.7	6.2	0.2	11.0	0.3		
FY2017 Authorized Debt	58.3	21.7	20.3	2.6	4.9	0.2	8.5	0.2		
FY2017 LOC Payback	150.0	55.8	52.1	6.7	12.5	0.4	22.0	0.5		
FY2018 Debt	291.0	105.2	101.1	13.6	25.7	0.8	43.9	0.8		
Subtotal - Allocated Contributions Incl. Debt	785.7	287.5	274.2	34.4	67.9	2.1	117.3	2.3	0.0	0.0
Federal	460.5									
PRIIA Match	148.5	49.5	49.5							49.5
Other State and Local	15.3	1.1	5.1	6.8	0.3	0.01	0.6	0.01	1.4	
MWAA	118.2									
Other	6.0									
Subtotal - Other CIP Funding	748.5	50.6	54.6	6.8	0.3	0.0	0.6	0.0	1.4	49.5
<b>Total</b>	<b>1,534.2</b>	<b>338.1</b>	<b>328.9</b>	<b>41.2</b>	<b>68.2</b>	<b>2.1</b>	<b>117.9</b>	<b>2.3</b>	<b>1.4</b>	<b>49.5</b>

## Appendix D - Human Capital Summary

Human capital management requires defining and categorizing employees' skills and abilities to ensure those skills and abilities are used to accomplish the goals and objectives of the organization. At Metro, the management of human capital involves workforce planning and investment, and is aligned with Metro's strategic plan and core mission of operating and maintaining a safe, reliable, and effective transit system.

One measure of human capital is the number of people employed and the various costs associated with such employment, referred to as personnel costs. Metro's personnel costs fall into two major categories: labor and fringe benefits.

Labor costs, which include regular wage and overtime pay for operations employees and salary expense for management, professional, and administrative personnel, make up approximately 67.8 percent of total personnel costs. The Authority-wide FY2018 labor budget for operating and capital is \$1.0 billion.

Fringe benefit costs are the personnel-related expenses that are above and beyond the direct cost of employee wages and salaries. Metro's fringe benefits are comprised of health insurance and pension plan costs, as well as government mandated expenses which include unemployment insurance and payroll taxes. The Authority-wide FY2018 fringe benefit budget for operating and capital is \$493.8 million. The FY2018 fringe benefit budget is \$14.7 million less than the FY2017 budget, primarily due to the reduction of fringe benefit costs associated with the elimination of 800 positions from 13,032 in FY2017 to 12,232 in FY2018, as well as savings associated with changes to healthcare for non-represented employees.

The following tables provide a detailed, three-year comparison of total human capital staffing levels for Metro. The staffing requirement for FY2018 is 12,232, consisting of 10,902 operating positions and 1,330 capital positions. Distributions of authorized positions are subject to change as the staffing strategy for the FY2018 budget year and remaining position reductions are finalized.

The table below shows a breakdown, by department, of the staffing levels for FY2016 - FY2018.

### Human Capital by Department

	FY2016 Approved Budget	FY2017 Approved Budget	FY2018 Approved Budget <sup>1,2</sup>	Change from FY2017 to FY2018
<b>General Manager / CEO</b>	4	6	4	(2)
<b>Inspector General</b>	34	36	35	(1)
<b>Board Secretary</b>	5	4	4	—
<b>External Relations</b>	141	139	115	(24)
<b>Internal Business Operations</b>	599	571	520	(51)
<b>Chief Financial Officer</b>	295	271	252	(19)
<b>Internal Compliance</b>	90	118	60	(58)
<b>Fair Practices</b>	11	12	22	10
<b>General Counsel</b>	48	48	48	—
<b>Safety &amp; Environmental Management</b>	67	66	76	10
<b>Capital Planning and Program Management</b>	473	499	420	(79)
<b>Chief Operating Officer</b>	11,228	11,262	10,676	(586)
Chief Operating Officer - Admin	7	6	5	(1)
Rail Services	4,383	4,415	4,059	(356)
Bus Services	4,097	4,086	3,947	(139)
Access Services	56	53	50	(3)
Metro Transit Police	729	726	694	(32)
Support Services	1,715	1,718	1,714	(4)
Office of Budget, Performance and Planning	241	258	207	(51)
<b>TOTAL</b>	<b>12,995</b>	<b>13,032</b>	<b>12,232</b>	<b>(800)</b>

<sup>1</sup> The staffing levels for FY2018 reflect the elimination of 700 positions for management efficiencies and the reduction of 100 positions for service right sizing

<sup>2</sup> Authorized positions reflect the department's approved headcount based on WMATA's FY2018 organizational structure. Departmental distributions of authorized positions are subject to change as the staffing strategy for the FY2018 position reduction is finalized. There is no change from the total approved headcount for the FY2016 and FY2017 Approved Budgets.

A three-year comparison of total human capital costs in the operating and capital budgets is presented below.

### Human Capital Summary - All Modes

	FY2016 Approved Budget	FY2017 Approved Budget	FY2018 Approved Budget	Change
<b>POSITIONS</b>	<b>12,995</b>	<b>13,032</b>	<b>12,232</b>	<b>(800)</b>
<b>LABOR</b>	<b>\$1,084,718,301</b>	<b>\$1,102,420,774</b>	<b>\$1,040,126,330</b>	<b>(\$62,294,444)</b>
Health Care	\$209,985,794	\$221,126,580	\$213,387,242	(\$7,739,338)
Taxes - FICA	\$81,918,916	\$84,010,943	\$78,204,437	(\$5,806,506)
Pension - Defined Benefit	\$163,042,250	\$155,961,882	\$151,756,546	(\$4,205,336)
Pension - Defined Contribution	\$16,103,500	\$12,124,000	\$11,660,669	(\$463,331)
OPEB Trust Contribution	\$11,000,000	—	—	—
Life Insurance	\$1,650,000	\$2,024,358	\$2,009,434	(\$14,924)
Long Term Disability	\$1,125,000	\$1,237,500	\$1,190,208	(\$47,292)
Taxes - Unemployment	\$1,150,000	\$1,148,516	\$1,152,219	\$3,703
Workers' Compensation Reserve Contribution and Assessment	\$24,828,423	\$25,855,735	\$30,055,889	\$4,200,154
<b>Total Allocated Fringe Benefits</b>	<b>\$510,803,883</b>	<b>\$503,489,514</b>	<b>\$489,416,643</b>	<b>(\$14,072,871)</b>
Other Unallocated Fringe Benefits	\$5,481,990	\$5,073,026	\$4,414,214	(\$658,812)
<b>TOTAL FRINGE BENEFITS</b>	<b>\$516,285,873</b>	<b>\$508,562,540</b>	<b>\$493,830,857</b>	<b>(\$14,731,683)</b>

### Human Capital Summary Fringe Benefit Annual Budget Rates

	FY2016 Approved Budget	FY2017 Approved Budget	FY2018 Approved Budget	Change
Average Annual Pay	\$83,472	\$84,593	\$85,033	\$440
Average Full Fringe Cost	\$39,730	\$39,024	\$40,372	\$1,348
Full Fringe Rate	47.6%	46.1%	47.5%	1.4%

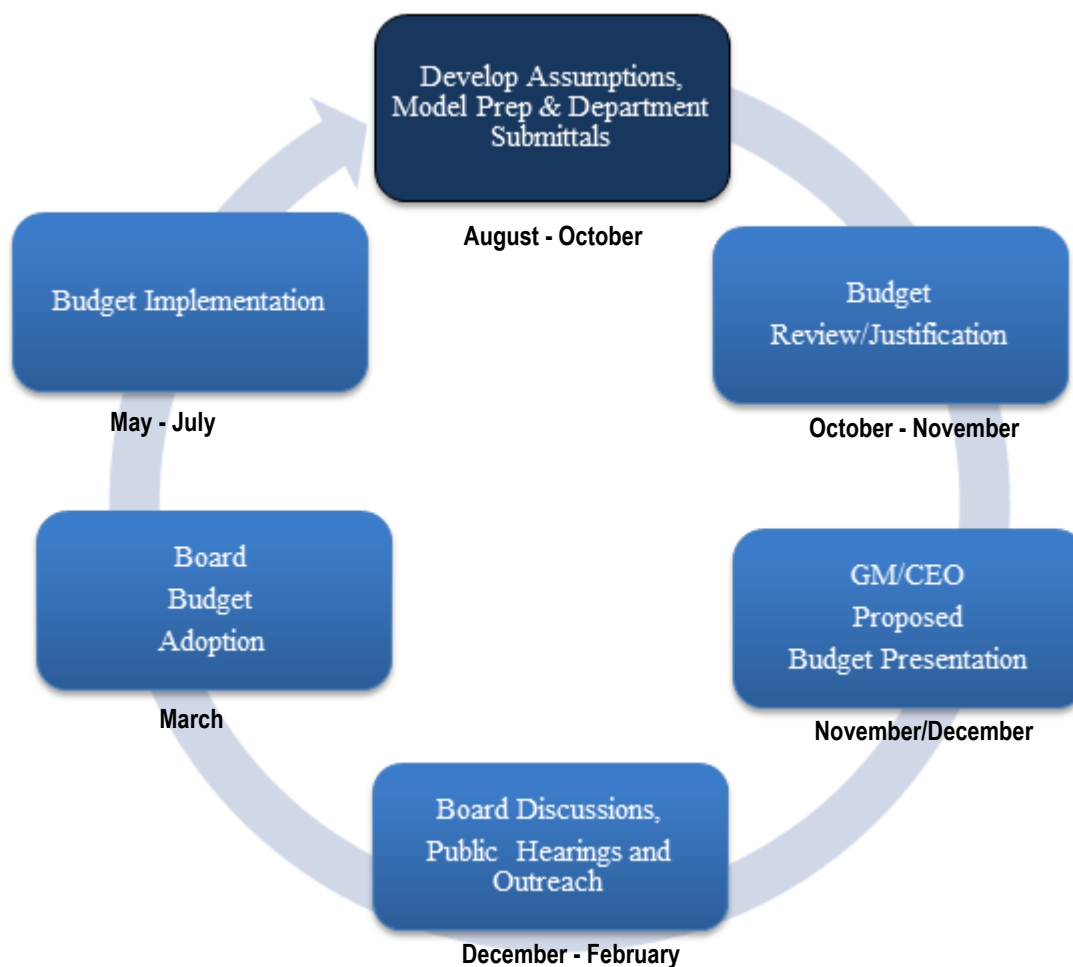
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## Appendix E - Budget Process

Metro's annual budget serves as the foundation for its financial planning and control. The General Manager/Chief Executive Officer (GM/CEO), Chief Financial Officer, and staff prepare and submit the budget to the Board of Directors for consideration and approval. The annual budget consists of two components: operating and capital. It is the responsibility of each department to administer its operations in such a manner to ensure that the use of the funds is consistent with the goals and programs authorized by the Board and that approved spending levels are not exceeded.

Metro's budget planning begins in August of the preceding fiscal year with the development of budget priorities and assumptions for the plan year. The budget must be adopted and implemented by June 30 for the fiscal year beginning on July 1. The budget process consists of six major phases: 1) development of key assumptions/drivers, model preparation, and budget formulation which includes department submissions; 2) budget review/justification; 3) GM/CEO's presentation of the proposed budget to the Board; 4) Board discussions, public hearings and outreach; 5) budget adoption by the Board; and 6) budget implementation (see figure below).



### ***Budget Development and Departmental Submissions***

Metro began the process of developing the FY2018 budget shortly after the adoption of the FY2017 Approved Budget. As part of the budget development process, FY2016 actual results with specific programmatic changes were used as the FY2018 baseline for budgeting non-personnel related costs. The FY2017 Approved Budget

and the FY2016 actuals were then analyzed, and identified assumptions were modified, including fuel prices, contractually obligated union wages and benefits, and fare revenues. Based on the analysis of the data, Metro assigned targets to each department. Simultaneously, Metro pursued additional Federal, state and local funding and grants.

Using the Strategic Plan framework, the GM/CEO's Business Plan further guides both the Operating and Capital budget development processes. It identifies priorities for Metro, provides the foundation for department-specific work plans and keeps the agency focused on the long term goals as outlined in the Strategic Plan. The GM/CEO's business plan outlines necessary actions to achieve priorities; provides measures to monitor success, and provides the Board and public with a transparent and accountable framework. The priorities are reflected in the resulting proposed budget and multi-year operating and capital investment plans.

The Office of Management and Budget Services (OMBS) staff develops guidelines and assumptions in line with the General Manager's business plan that drive the budget planning process. These guidelines and assumptions are then passed along and incorporated into the department budgets.

- The initial planning, development of assumptions, and preparation of instructions and training materials are conducted in August.
- The annual budget kickoff meeting is held in September with all department leaders and budget preparers. New budget initiative requests are then developed.
- The department operating and capital budget requests are developed, reviewed, approved at the department level and submitted to OMBS in mid-October.

### ***Budget Review and Proposal***

- The proposed CIP is developed concurrently with the proposed operating budget. OMBS meets with each project manager to review and collaboratively develop the capital forecasts and requests. Recommendations for updates to the CIP are reviewed with executive management in November.
- Operating and capital budget requests are reviewed by OMBS and the Executive Management Team (EMT). The proposed budget recommendations are presented to the GM/CEO in November.
- Once the GM/CEO has approved the annual Budget Proposal and Multi-Year plans, they are presented to Board of Directors during the December meeting. They are also released to the public in December.

### ***Budget Discussion and Adoption***

- The proposed budget is presented and reviewed at the Finance Committee meeting and the full Board deliberates through early spring.

- Metro undertakes significant outreach efforts regarding the budget, particularly for proposed service and fare changes, prior to adoption. The outreach occurs in three key areas:
  - *Public hearings*: During the budget process, Metro holds at least one public hearing to review any proposed service or fare changes, as well as the proposed use of federal funding in the CIP. The comments and feedback received from residents throughout the region are presented to the Board for consideration.
  - *Public participation*: Metro's Public Participation Plan guides substantial additional outreach efforts beyond the public hearings: open houses, station pop-ups, and community events. The outreach provide specific and convenient opportunities for riders and local organizations to provide input and discuss their views. It ensures full and fair participation for all potentially affected communities, including minority, low-income, and limited English proficient populations.
  - *Rider survey*: Metro also conducts an online survey to solicit rider input on key questions regarding the budget and fare policy.
- Metro staff summarizes data collected from these efforts, as well as all public comments/feedback received during the outreach process in a staff report that is delivered to the Board for review.
- Collectively, Metro's outreach efforts meet or exceed the requirements of both the WMATA Compact and the Federal Transit Administration's newly expanded Title VI guidelines.

### ***Amendments***

- When necessary, amendments to the budget are presented to the Finance Committee. The Finance Committee then presents amendments to the Board for review, approval and adoption.

### ***Budget Implementation***

- Implementation of the adopted budget occurs between May and June.
- The FY2018 Approved Budget is effective on July 1, 2017.
- Monthly budget variance reports are prepared by OMBS to enable management to monitor and control expenses and revenues.
- Quarterly financial reports are also prepared by OMBS and presented by Metro management to the Board of Directors.

- These reports are used to monitor financial performance and ensure compliance with the approved budget.

### ***Budget Basis***

The underlying financial statements that inform this budget process have been prepared in accordance with Generally Accepted Accounting Principles (GAAP) per the Governmental Accounting Standards Board Statement No. 34 (Basic Financial Statements – and Management’s Discussion and Analysis – For State and Local Governments). All financial information is consolidated into business-type activities that make up Metro’s Enterprise Fund. These businesses-type activities include transit operating and capital costs, infrastructure construction and debt activities.

The budget is also based upon the provisions of GAAP, as applicable to government entities in the United States of America. Annual budgets are adopted in accordance with GAAP with the following exceptions:

- Depreciation and amortization are excluded, and
- Net actuarial determined post-employment benefit obligation recognized under Government Accounting Standards Board (GASB) Statement No. 45, which was implemented by Metro in FY2008, has been excluded from the budget expenses; such costs are included in operating expenses in the annual financial statements but are not budgeted.

The annual budget is developed on the basis of two budget methodologies – continuation-level and zero-based. Continuation-level budgeting is used to develop the funding and resources necessary to sustain multi-year critical operating, special programs, and previously approved capital projects. The agency utilized a hybrid zero-based budgeting approach for the development of the FY2018 operating budget. The zero-based approach was used to determine resources for on-going general and administrative expenses, new programs and capital projects. In accordance with the Financial Standards, OMBS monitors revenues and budget expenditures throughout the fiscal year.

### **Metro’s Enterprise Fund**

The Enterprise Fund is the sole fund for Metro. Within this fund, income sources are classified in one of six categories: passenger fares and parking revenues, federal funds, state and local funds, business revenues, other sources, and debt. Passenger fares and parking is the largest of the six categories. Federal funds consist of Federal grants and funds to support the capital program. State and local funds support the capital program, as well as debt service and the operating budget subsidy. Business

revenues include advertising and joint development, among other funding sources.

### **Balanced Operating Budget**

Metro is required to annually adopt a balanced operating budget where operating revenues and subsidies equal expected operating expenses for the fiscal year. In accordance with Article VIII of WMATA’s Compact, the Board annually adopts a current expense budget for each fiscal year. Based on the Compact, the budget includes the Board’s estimated expenditures for administration, operation, maintenance and repairs, debt service requirements and payments to be made into any funds required to be maintained.

The total expenditures are balanced by the Board’s estimated revenues and receipts from all sources, excluding funds included in the capital budget or otherwise earmarked for other purposes. Following the end of the fiscal year, if there is an operating deficit, the local jurisdictions are billed for their respective contributions.

The focus of the operating budget is on the personnel, material/supplies and services necessary to operate Metrobus, Metrorail, and MetroAccess. Budgetary issues for the operating budget center on the cost of continuing operations, expanding services to meet growing demand, and improving efficiency of service.

### **Capital Budget**

In accordance with Article VIII, paragraph 26 of WMATA’s Compact, the Board adopts an annual capital budget. This budget specifies all capital projects that are expected to commence or continue during the budget period. The budget also provides the estimated cost of each project and an explanation of its planned funding sources.

The primary focus of the capital budget is safety and the condition of Metro’s current assets and infrastructure, and what is needed to maintain them in a state of good repair. The capital budget makes the reliable, continuous and safe operation of each mode (Metrobus, Metrorail and MetroAccess) possible.

### **Capital Expenditures**

Capital expenditures are those that will lead to a future benefit beyond the current fiscal year. Expenditures are classified as capital when an entity spends money either to procure or construct fixed assets, or to improve and extend the useful life of an existing fixed asset.

The capital programming process assists Metro’s leadership in making decisions regarding the assets and infrastructure required to support and/or grow the bus, rail,

and paratransit operations. Metro's assets and infrastructure include, but are not limited to:

- Buses
- Railcars
- Stations and tunnels
- Track and wayside
- Signal and power systems
- Administration and maintenance facilities

## **FY2018 Budget Development Calendar**

<b>August</b>	Initial planning, development of assumptions, preparation of instructions and training materials for the operation and capital budgets are initiated.
<b>September</b>	Budget development kickoff meetings and budget system training classes are held with all departments. A review of prior year-end results are presented to the Board for information.
<b>October</b>	Project managers work collaboratively with OMBS to update project forecasts for current year and future year expenses. The updated forecasts are informed by the current project schedules and cost estimates.
<b>October/November/ December</b>	Departments submit their budget requests to OMBS. The CIP budget is developed concurrently with the annual operating budget. Budget recommendations are reviewed with executive management and the GM/CEO. The GM/CEO's proposed budget is presented to the Finance Committee.
<b>January/February</b>	Board Discussions and public participation.
<b>February</b>	Findings from public participation are summarized and presented to the board. Updated operating and capital budgets are prepared for Board approval.
<b>March</b>	Approval of the FY2018 Annual Budget.
<b>July 1</b>	Fiscal Year 2018 begins.

## Appendix F - Financial Standards

Metro's Financial Standards can be grouped into three major areas: general, business planning parameters, and debt policy. The purpose of the general standards is to ensure that Metro prudently manages its financial affairs and establishes appropriate cash reserves. The business directives from the General Manager provide management with a framework of parameters for developing the upcoming year's budget and other longer-term financial plans, as well as establishing future business targets for management to achieve. The purpose of debt policy standards is to limit the level of debt that may be incurred and to ensure that debt assumptions are based on financial parameters similar to or more conservative than those that would be placed on Metro by the financial marketplace. Actual debt covenants may differ from these standards, and in accordance with the debt policy, the actual covenants will be disclosed in any Board report supporting a debt issuance.

This Appendix also provides an explanation of how state and local funding support is allocated to the jurisdictions.

### Financial Standards – General

#### *GAAP*

- Complete and accurate accounting records are maintained in accordance with Generally Accepted Accounting Principles (GAAP) as required by the Government Accounting Standards Board.

#### *Revenue and Expenditure Recognition*

- Revenues are recognized in the period that they are earned and expenses are recognized in the period in which they are incurred. Metro distinguishes between operating and non-operating revenues and expenses in its financial statements.
- The principal source of operating revenues (not including state or local operating subsidy contributions) is passenger fares and parking fees, which make up approximately 90 to 95 percent of such revenues.

#### *Fiscal Year*

- The fiscal year-end for financial reporting purposes is June 30. The Board approves the budget for each fiscal year by June 30 of the previous year.

#### *Audited Comprehensive Annual Financial Report (CAFR)*

- An independent certified public accounting firm performs an examination of Metro's consolidated

financial statements, including Single Audit requirements. The goal is to receive an unqualified opinion on the financial statements and an opinion that Metro is in compliance with the Federal Single Audit requirements in all material respects and to receive the Government Finance Officers Association (GFOA) award for excellence in reporting.

### *Other Financial Policies and Guidelines*

- Funds are invested within the guidelines of the Board's approved investment policies and in compliance with the investment guidelines in Metro's Compact.
- In accordance with Board Resolution No. 81-36, designated Metro officials are empowered to open, close or authorize changes to accounts and authorized to appoint individuals as official signatories for financial accounts.
- An annual actuarial analysis is performed on all Metro-administered pension plans. Based on the results of such analysis, Metro makes contributions as required in agreement with the terms of each plan.
- Appropriate insurance coverage is maintained to mitigate the risk of material loss. For self-insured retentions, Metro records the liabilities, including losses incurred but not reported, at 100 percent of the net present value.
- The budget includes the operating and capital components necessary to implement the policy directions contained in previously Board adopted plans. The budget is prepared in a fashion to clearly describe the projects and programs for the period.
- WMATA engages in regional long-range transportation planning for the Washington metropolitan area in conjunction with the National Capital Region Transportation Planning Board (TPB) and other jurisdictional partners. Staff provides transit system inputs to TPB for the Constrained Long-Range Plan (CLRP) and identifies changes affecting the major financial assumptions of the plan and progress toward the implementation of new projects and programs.
- WMATA also engages in short-range transit planning for the Washington metropolitan area. Staff provides inputs to the region's six-year Transportation Improvement Program (TIP) and identifies the capital investment needs to support the existing regional transit system and regional service expansion.

- The Office of Inspector General (OIG) develops an annual work plan each year. The Board's Audits and Investigations Committee provides input and approves the work plan, which covers audits, evaluations, and investigations. Furthermore, completed audit and evaluation reports are submitted to the Board via the Audits and Investigations Committee.
- Recommendations for improvements are based on audits and evaluations performed by the OIG. Audits are performed in accordance with Government Auditing Standards, while evaluations are performed in accordance to the Council of the Inspectors General on Integrity and Efficiency's Quality Standards for Inspection and Evaluation. These recommendations, management's action plans and progress toward implementation are periodically reported directly to the Board. Semi-annual reports to the Board and significant stakeholders provide an overview of work performed by the OIG as related to the annual work plan.

### **Financial Standards – Business Planning Parameters**

- Passenger revenue forecasts are derived from historical ridership and revenue trends as well as forecasts of regional growth in population and employment. Since ridership may be affected by actual or proposed fare policy change, the impacts on ridership and average fare forecasts are based on conservative estimates.
- The Board reviews and updates the fare policy on a regular cycle. Management may propose fare modifications to achieve transit ridership improvements as well as to maintain financial sustainability.
- Service plan assumptions are based on demonstrated needs as defined through short-range planning.
- Capital programs are funded according to the terms of the laws, regulations and/or discretionary procedures approved by the Board. The capital program covers Metro's assets, including major transportation projects, and is included in each annual budget.
- From time to time, Metro applies for and receives discretionary Federal and state funding. Discretionary funding is requested for major system expansion projects or extraordinary transit capital needs. Discretionary funding levels are estimated by project, based on Federal and appropriate state criteria and the likelihood of obtaining approvals.

### **Financial Standards – Debt Policy**

- Metro may not enter into a debt or financing arrangement unless the transaction is in full compliance with all applicable provisions of WMATA's Compact.
- Pursuant to WMATA's Compact (Article IX paragraph 27), Metro may borrow money in pursuit of its mission. All such bonds and evidences of indebtedness are authorized by resolution of the Board and are payable solely out of the revenues of Metro. The bonds and other debt obligations of Metro, except as may be otherwise provided in the indenture under which they are issued, are direct and general obligations of Metro and the full faith and credit of Metro are pledged for the prompt payment of the debt service.
- There is no borrowing limit set in WMATA's Compact
- Long-term debt may be included in the budget or long range plans; however, no such debt is incurred without the specific approval of the Board.
- The average life of debt instruments is approximately equal to or less than the average of the useful lives of the assets financed.
- Reserve funds that may be required by the financial markets for each debt issuance are maintained. Cash and securities, insurance or surety bonds may fund these reserves. For financial planning purposes, reserve requirements are included in the face value of debt issued.

## Allocation of State and Local Support

State and local funds support Metro's annual operating and capital budgets according to the approved subsidy calculations, described below.

### Operating Budget

The operating budget subsidy is allocated to the jurisdictional funding partners using six subsidy allocation formulas:

1. Regional bus subsidy allocation
2. Non-regional bus subsidy allocation
3. Rail maximum fare subsidy allocation
4. Rail base subsidy allocation
5. Paratransit subsidy allocation
6. Debt service allocation

### ***Formulas 1 and 2: Regional and Non-Regional Bus Subsidy Allocations***

The Metrobus subsidy is allocated using two distribution formulas. All bus routes are classified as being either regional or non-regional, based on route characteristics.

Regional bus routes generally provide transportation between jurisdictions. Regional bus routes may also include bus routes that serve major activity centers that operate on major arterial streets, and carry high volumes of riders either in one jurisdiction or in multiple jurisdictions. The following are the specific criteria used by the Regional Mobility Panel to classify bus routes.

- Inter-jurisdictional routes are defined as regional. Defining characteristics of inter-jurisdictional routes:
  - Cross a jurisdictional (independent city, county, state) boundary
  - Penetrate at least two jurisdictions by more than one-half mile in each
  - Operate "open door" (allows boarding and alighting) over at least a portion of the line in two or more jurisdictions
- If a route does not qualify as regional under the inter-jurisdictional definition, then it must meet at least two of the following three criteria to be regional:
  - Arterial Streets: Operates for a considerable distance on an arterial street and a substantial portion (usually a majority) of riders use stops on the arterial street. Routes which operate for a short distance on an arterial incidental to their service area are not included.

- Regional Activity Center: Serves one or more regional activity centers. A conservative definition of regional activity centers is used, including only those where there is virtually universal agreement as to their regional character. Routes which feed Metrorail stations, but which do not directly serve any regional activity center, are not considered to be regional.
- Cost Effectiveness: Annual boardings per annual platform hour greater than 30 applied consistently in all jurisdictions.

Routes which do not meet the criteria described above are classified as non-regional. Regional and non-regional bus subsidy is allocated to the jurisdictions using the following formulas.

- **Regional Bus Subsidy Allocation.** The distribution of regional bus subsidy to the jurisdictions is based on a weighted, four-factor formula in the following proportions:

1. Density weighted population	25%
2. Revenue hours	25%
3. Revenue miles	35%
4. Average weekday ridership	15%

Density weighted population for each jurisdiction determined by taking the average of

- the jurisdiction's share of the urbanized population in the compact area
- the jurisdiction's share of "density weighted" population (i.e. population times density)

The revenue hours factor is determined by taking the annual revenue hours assigned to each jurisdiction divided by the total regional revenue hours. The revenue miles factor is determined by taking total revenue miles assigned to each jurisdiction divided by the total regional revenue miles. Ridership is determined by taking the average weekday ridership for each jurisdiction for the regional bus survey.

- **Non-Regional Bus Subsidy Allocation.** The distribution of non-regional bus subsidy to the jurisdictions is computed as follows:

1. Identify the costs of all Metrobus service, regional and non-regional
2. Identify the costs which would accrue for regional Metrobus service if no non-regional bus service were provided

3. Determine the costs of non-regional service by subtracting the regional Metrobus costs, as calculated in step two, from the costs of all Metrobus service
4. Divide the costs of non-regional service as computed in step three by total platform hours for non-regional service
5. Identify the non-regional platform hours for each jurisdiction
6. Multiply the platform hours for each jurisdiction by the hourly rate
7. Determine the revenue for each jurisdiction
8. Subtract from costs the revenue as determined in step seven

#### ***Formulas 3 and 4: Rail Maximum Fare and Base Subsidy Allocations***

The rail subsidy consists of two components: the maximum fare component and the base rail component. The total maximum fare subsidy is deducted from the total rail subsidy, and the result is allocated based on the base subsidy formula.

**Maximum Fare Subsidy Allocation.** The maximum fare portion of the rail subsidy is designed to recognize the “taper” and “cap” features of the Metrorail fare structure. The taper feature is reflected in the diminishing cost per mile for trips greater than six miles, and the cap is reflected in the maximum fare on rail. The subsidy for the maximum fare is calculated as the difference between the regular fare that would have been paid if the taper and cap features were not available, and the actual fare paid with the taper and cap.

Once the maximum fare subsidy is calculated, the benefiting jurisdictions are allocated one-half the calculated amount, based on the percent of riders from the individual jurisdiction who benefit from the taper and cap. These percentages are calculated from the data taken from the Metrorail Passenger Survey. The remaining half of the maximum fare subsidy is incorporated into the rail base subsidy.

**Rail Base Subsidy Allocation.** The base subsidy allocation for Metrorail service is based on three elements in equal proportions:

- |                                |       |
|--------------------------------|-------|
| 1. Density weighted population | 33.3% |
| 2. Number of rail stations     | 33.3% |
| 3. Average weekly ridership    | 33.3% |

Density weighted population is the same for the regional bus subsidy allocation as it is for the rail base subsidy allocation. The rail stations factor is calculated by taking the number of stations, or portions of stations, assigned to each jurisdiction, divided by the total number of stations in the system. Ridership is calculated by taking the average weekday ridership in each jurisdiction as determined by the rail passenger survey. Only persons who reside in the compact area are included in the distribution.

#### ***Formula 5: Paratransit Subsidy Allocation***

Paratransit subsidy is allocated to the jurisdictions using a two-factor formula with sub-allocations used for the Virginia jurisdictions.

1. Direct Costs - The contract carriers’ actual per trip, reservation and eligibility charges will be allocated directly to the jurisdictions
2. Overhead Costs - All other (non-direct) costs of the paratransit program will be allocated in proportion to the direct costs

Virginia sub-allocations of direct costs require that per trip charges be adjusted to reflect the average time of trips provided for each jurisdiction. Overhead costs assigned to Virginia jurisdictions will be sub-allocated based on the direct cost allocation as calculated above.

#### ***Formula 6: Debt Service Allocation***

Planned debt service charges are allocated to the jurisdictions in the same proportion as each jurisdiction’s current-year share of local match and system performance funding in the capital budget. The allocation of local match and system performance funding, in turn, is determined in accordance with the Capital Funding Agreement (CFA). For any planned new debt issuance shown in the CIP, allocated debt service is shown for all jurisdictions; however, if and when new debt is actually issued, jurisdictions are given the opportunity to “opt out” and provide their total principal contribution upfront to Metro rather than participate in the debt issuance.

## Appendix G - Debt Service

### Debt Policy/Borrowing Powers

WMATA's Compact allows the Authority to borrow money in pursuit of its mission. All such bonds and evidences of indebtedness are payable solely out of Metro's properties and revenues. The bonds and other obligations, except as may be otherwise provided in the indenture under which they were issued, are direct and general obligations of the Authority, and the full faith and credit of Metro are pledged for the prompt payment of the debt service.

Metro is required to make semi-annual payments of principal and interest on each series of bonds. There are certain covenants associated with these outstanding bonds with which the Authority must comply. The most significant are:

- Metro is to punctually pay principal and interest according to provisions in the bond document.
- Except for certain instances, Metro cannot sell, mortgage, lease or otherwise dispose of transit system assets without filing a certification by the General Manager/Chief Executive Officer and Treasurer with the Trustee and Bond Insurers that such action will not impede or restrict the operation of the transit system.
- Metro must at all times maintain certain insurance or self-insurance covering the assets and operations of the transit system.

### Existing Gross Revenue Transit Bonds

#### 2009A and B Bonds

In June 2009, Metro issued \$243.0 million of Gross Revenue Transit Bonds, Series 2009-A, and \$55.0 million of Build America Bonds, Series 2009-B. Bond proceeds net of premiums/discounts totaled \$309.9 million. The bonds provide for semi-annual payments of interest and annual payments of principal, with final maturity in July 2034. The annual jurisdictional debt service payment on the bonds is \$21.2 million, net of a semi annual credit of \$1.3 million for the Series B, Build America Bonds. Five jurisdictions opted out of the bond issuance and provided \$115.0 million in funding to bring total proceeds related to the bond issuance to \$425.0 million.

#### 2016A Bonds

During fiscal year 2016, Metro issued \$220 million of Gross Revenue Transit Bonds, Series 2016A. Metro has planned for federal capital project grant reimbursements to fund the repayment of the principal on the 2016A bonds. All of the interest on the bonds through July 1, 2017 is funded by bond premium. A portion of the January 1, 2018 interest is also paid from this source while the balance will come from the jurisdictions in previously earmarked funding for line of credit interest expense.

#### Gross Revenue Transit Bonds

	Principal	Interest	Total Due
<b>Series 2009A</b>			
Due to Bondholders 1/1/2018	—	\$4,775,222	\$4,775,222
Due to Bondholders 7/1/2018	\$9,125,000	\$4,775,222	\$13,900,222
<b>Total</b>	<b>\$9,125,000</b>	<b>\$9,550,444</b>	<b>\$18,675,444</b>
<b>Series 2009B<sup>1</sup></b>			
Due to Bondholders 1/1/2018	—	\$1,297,739	\$1,297,739
Due to Bondholders 7/1/2018	—	\$1,297,739	\$1,297,739
<b>Total</b>	<b>\$0</b>	<b>\$2,595,478</b>	<b>\$2,595,478</b>
<b>Series 2016A<sup>2</sup></b>			
Due to Bondholders 1/1/2018	—	\$1,524,162	\$1,524,162
Due to Bondholders 7/1/2018	\$85,000,000	\$3,825,000	\$88,825,000
<b>Total</b>	<b>\$85,000,000</b>	<b>\$5,349,162</b>	<b>\$90,349,162</b>

<sup>1</sup> Net of Build America Bond (BAB) credit

<sup>2</sup> Total due to bondholders is \$3.825 million of which \$2,300,838 is scheduled to come from bond premiums

Metro also has access to short-term lines of credit. The lines of credit support Metro's capital program and are also available to manage operating cash flow needs. The total capacity on the lines of credit is \$250 million.

### New Capital Bonds

As outlined in previous chapters, long-term debt is an important component of the funding plan for Metro's six-year CIP.

The following tables provides a summary of WMATA's estimated jurisdictional share of future long-term debt and detail of WMATA's proposed debt issuances and jurisdictional allocations. The amounts represented in these tables are subject to change based on financial market conditions and jurisdictional decisions to opt for additional cash contributions in lieu of debt issuance.

#### Debt Strategy

	Principal	Issuance	Interest	Total Due
<b>District of Columbia</b>				
<b>Total District of Columbia</b>	<b>\$388,604</b>	<b>\$4,240</b>	<b>\$233,922</b>	<b>\$626,767</b>
<b>Maryland</b>				
Montgomery County	\$183,913	\$2,007	\$110,707	\$296,627
Prince George's County	\$185,747	\$2,027	\$111,812	\$299,586
<b>Total Maryland</b>	<b>\$369,660</b>	<b>\$4,034</b>	<b>\$222,519</b>	<b>\$596,213</b>
<b>Virginia</b>				
Alexandria	\$45,214	\$493	\$27,217	\$72,924
Arlington County	\$90,608	\$989	\$54,542	\$146,138
City of Fairfax	\$2,839	\$31	\$1,709	\$4,579
Fairfax County	\$157,147	\$1,715	\$94,595	\$253,457
Falls Church	\$3,228	\$35	\$1,943	\$5,207
<b>Total Virginia</b>	<b>\$299,036</b>	<b>\$3,263</b>	<b>\$180,006</b>	<b>\$482,305</b>
<b>Total Debt</b>	<b>\$1,057,300</b>	<b>\$11,537</b>	<b>\$636,447</b>	<b>\$1,705,284</b>

## Gross Revenue Transit Bonds (Detail)

Year Ending	Principal	Interest	Debt Service	Principal	Interest	BAB Credit	Debt Service	Aggregate Debt Service
1/1/2010		6,950,487	6,950,487		2,160,278	(756,097)	1,404,181	8,354,667
7/1/2010	5,375,000	6,193,503	11,568,503		1,925,000	(673,750)	1,251,250	12,819,753
1/1/2011		6,059,128	6,059,128		1,925,000	(673,750)	1,251,250	7,310,378
7/1/2011	6,555,000	6,059,128	12,614,128		1,925,000	(673,750)	1,251,250	13,865,378
1/1/2012		5,895,253	5,895,253		1,925,000	(673,750)	1,251,250	7,146,503
7/1/2012	6,885,000	5,895,253	12,780,253		1,925,000	(673,750)	1,251,250	14,031,503
1/1/2013		5,734,128	5,734,128		1,925,000	(673,750)	1,251,250	6,985,378
7/1/2013	7,205,000	5,734,128	12,939,128		1,925,000	(673,750)	1,251,250	14,190,378
1/1/2014		5,556,653	5,556,653		1,925,000	(673,750)	1,251,250	6,807,903
7/1/2014	7,560,000	5,556,653	13,116,653		1,925,000	(673,750)	1,251,250	14,367,903
1/1/2015		5,385,753	5,385,753		1,925,000	(673,750)	1,251,250	6,637,003
7/1/2015	7,900,000	5,385,753	13,285,753		1,925,000	(673,750)	1,251,250	14,537,003
1/1/2016		5,193,503	5,193,503		1,925,000	(673,750)	1,251,250	6,444,753
7/1/2016	8,285,000	5,193,503	13,478,503		1,925,000	(673,750)	1,251,250	14,729,753
1/1/2017		4,992,472	4,992,472		1,925,000	(673,750)	1,251,250	6,243,722
7/1/2017	8,690,000	4,992,472	13,682,472		1,925,000	(673,750)	1,251,250	14,933,722
1/1/2018*		4,775,222	4,775,222		1,925,000	(673,750)	1,251,250	6,026,472
7/1/2018*	9,125,000	4,775,222	13,900,222		1,925,000	(673,750)	1,251,250	15,151,472
1/1/2019		4,547,097	4,547,097		1,925,000	(673,750)	1,251,250	5,798,347
7/1/2019	9,580,000	4,547,097	14,127,097		1,925,000	(673,750)	1,251,250	15,378,347
1/1/2020		4,307,597	4,307,597		1,925,000	(673,750)	1,251,250	5,558,847
7/1/2020	10,060,000	4,307,597	14,367,597		1,925,000	(673,750)	1,251,250	15,618,847
1/1/2021		4,043,522	4,043,522		1,925,000	(673,750)	1,251,250	5,294,772
7/1/2021	10,585,000	4,043,522	14,628,522		1,925,000	(673,750)	1,251,250	15,879,772
1/1/2022		3,765,666	3,765,666		1,925,000	(673,750)	1,251,250	5,016,916
7/1/2022	11,140,000	3,765,666	14,905,666		1,925,000	(673,750)	1,251,250	16,156,916
1/1/2023		3,473,241	3,473,241		1,925,000	(673,750)	1,251,250	4,724,491
7/1/2023	11,725,000	3,473,241	15,198,241		1,925,000	(673,750)	1,251,250	16,449,491
1/1/2024		3,165,459	3,165,459		1,925,000	(673,750)	1,251,250	4,416,709
7/1/2024	12,340,000	3,165,459	15,505,459		1,925,000	(673,750)	1,251,250	16,756,709
1/1/2025		2,841,534	2,841,534		1,925,000	(673,750)	1,251,250	4,092,784
7/1/2025	12,990,000	2,841,534	15,831,534		1,925,000	(673,750)	1,251,250	17,082,784
1/1/2026		2,500,547	2,500,547		1,925,000	(673,750)	1,251,250	3,751,797
7/1/2026	13,670,000	2,500,547	16,170,547		1,925,000	(673,750)	1,251,250	17,421,797
1/1/2027		2,141,709	2,141,709		1,925,000	(673,750)	1,251,250	3,392,959
7/1/2027	14,390,000	2,141,709	16,531,709		1,925,000	(673,750)	1,251,250	17,782,959
1/1/2028		1,763,972	1,763,972		1,925,000	(673,750)	1,251,250	3,015,222
7/1/2028	15,145,000	1,763,972	16,908,972		1,925,000	(673,750)	1,251,250	18,160,222
1/1/2029		1,366,416	1,366,416		1,925,000	(673,750)	1,251,250	2,617,666
7/1/2029	15,940,000	1,366,416	17,306,416		1,925,000	(673,750)	1,251,250	18,557,666
1/1/2030		953,850	953,850		1,925,000	(673,750)	1,251,250	2,205,100
7/1/2030	16,765,000	953,850	17,718,850		1,925,000	(673,750)	1,251,250	18,970,100
1/1/2031		527,756	527,756		1,925,000	(673,750)	1,251,250	1,779,006
7/1/2031	17,620,000	527,756	18,147,756		1,925,000	(673,750)	1,251,250	19,399,006
1/1/2032		79,931	79,931		1,925,000	(673,750)	1,251,250	1,331,181
7/1/2032	3,145,000	79,931	3,224,931	15,370,000	1,925,000	(673,750)	16,621,250	19,846,181
1/1/2033		-	-		1,387,050	(485,468)	901,583	901,583
7/1/2033		-	-	19,375,000	1,387,050	(485,468)	20,276,583	20,276,583
1/1/2034		-	-		708,925	(248,124)	460,801	460,801
7/1/2034		-	-	20,255,000	708,925	(248,124)	20,715,801	20,715,801
<b>Total</b>	<b>242,675,000</b>	<b>171,284,809</b>	<b>413,959,809</b>	<b>55,000,000</b>	<b>92,977,228</b>	<b>(32,542,030)</b>	<b>115,435,198</b>	<b>529,395,007</b>

\* FY2018 Jurisdiction subsidy requirements include funds for debt service payments due on 1/1/2018 and 7/1/2018.

## Jurisdictional Share of Debt

Debt Repayment	Total Debt Service		District of Columbia		Montgomery County		Prince George County		Alexandria		Arlington County		City of Fairfax		Fairfax County		Falls Church	
	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest
FY2019	\$13,901	\$26,373	\$5,109	\$9,693	\$2,418	\$4,587	\$2,442	\$4,633	\$594	\$1,128	\$1,191	\$2,260	\$37	\$71	\$2,066	\$3,920	\$42	\$81
FY2020	\$19,966	\$31,416	\$7,338	\$11,547	\$3,473	\$5,465	\$3,508	\$5,519	\$854	\$1,343	\$1,711	\$2,692	\$54	\$84	\$2,967	\$4,669	\$61	\$96
FY2021	\$24,246	\$37,352	\$8,912	\$13,728	\$4,218	\$6,497	\$4,260	\$6,562	\$1,037	\$1,597	\$2,078	\$3,201	\$65	\$100	\$3,604	\$5,552	\$74	\$114
FY2022	\$29,151	\$36,787	\$10,714	\$13,521	\$5,071	\$6,399	\$5,121	\$6,463	\$1,247	\$1,573	\$2,498	\$3,153	\$78	\$99	\$4,333	\$5,468	\$89	\$112
FY2023	\$30,221	\$38,950	\$11,108	\$14,316	\$5,257	\$6,775	\$5,309	\$6,843	\$1,292	\$1,666	\$2,590	\$3,338	\$81	\$105	\$4,492	\$5,789	\$92	\$119
<b>Total</b>																		
<b>FY2018-23</b>	<b>\$117,485</b>	<b>\$170,877</b>	<b>\$43,181</b>	<b>\$62,805</b>	<b>\$20,436</b>	<b>\$29,723</b>	<b>\$20,640</b>	<b>\$30,020</b>	<b>\$5,024</b>	<b>\$7,307</b>	<b>\$10,068</b>	<b>\$14,644</b>	<b>\$315</b>	<b>\$459</b>	<b>\$17,462</b>	<b>\$25,398</b>	<b>\$359</b>	<b>\$522</b>
FY2024	\$32,968	\$37,778	\$12,117	\$13,885	\$5,735	\$6,571	\$5,792	\$6,637	\$1,410	\$1,615	\$2,825	\$3,237	\$89	\$101	\$4,900	\$5,615	\$101	\$115
FY2025	\$33,942	\$36,480	\$12,475	\$13,408	\$5,904	\$6,345	\$5,963	\$6,409	\$1,451	\$1,560	\$2,909	\$3,126	\$91	\$98	\$5,045	\$5,422	\$104	\$111
FY2026	\$34,944	\$35,143	\$12,843	\$12,917	\$6,078	\$6,113	\$6,139	\$6,174	\$1,494	\$1,503	\$2,995	\$3,012	\$94	\$94	\$5,194	\$5,223	\$107	\$107
FY2027	\$35,976	\$33,767	\$13,223	\$12,411	\$6,258	\$5,874	\$6,320	\$5,932	\$1,538	\$1,444	\$3,083	\$2,894	\$97	\$91	\$5,347	\$5,019	\$110	\$103
FY2028	\$37,038	\$32,351	\$13,613	\$11,890	\$6,443	\$5,627	\$6,507	\$5,683	\$1,584	\$1,383	\$3,174	\$2,772	\$99	\$87	\$5,505	\$4,808	\$113	\$99
FY2029	\$38,131	\$30,893	\$14,015	\$11,354	\$6,633	\$5,374	\$6,699	\$5,427	\$1,631	\$1,321	\$3,268	\$2,647	\$102	\$83	\$5,667	\$4,592	\$116	\$94
FY2030	\$39,257	\$29,392	\$14,429	\$10,803	\$6,829	\$5,113	\$6,897	\$5,164	\$1,679	\$1,257	\$3,364	\$2,519	\$105	\$79	\$5,835	\$4,368	\$120	\$90
FY2031	\$40,416	\$27,846	\$14,855	\$10,235	\$7,030	\$4,844	\$7,100	\$4,892	\$1,728	\$1,191	\$3,464	\$2,386	\$109	\$75	\$6,007	\$4,139	\$123	\$85
FY2032	\$41,609	\$26,255	\$15,293	\$9,650	\$7,238	\$4,567	\$7,310	\$4,612	\$1,779	\$1,123	\$3,566	\$2,250	\$112	\$71	\$6,184	\$3,902	\$127	\$80
FY2033	\$42,837	\$24,616	\$15,745	\$9,048	\$7,451	\$4,282	\$7,526	\$4,325	\$1,832	\$1,053	\$3,671	\$2,110	\$115	\$66	\$6,367	\$3,659	\$131	\$75
FY2034	\$44,102	\$22,930	\$16,209	\$8,428	\$7,671	\$3,989	\$7,748	\$4,028	\$1,886	\$981	\$3,779	\$1,965	\$118	\$62	\$6,555	\$3,408	\$135	\$70
FY2035	\$45,404	\$21,194	\$16,688	\$7,790	\$7,898	\$3,687	\$7,977	\$3,723	\$1,942	\$906	\$3,891	\$1,816	\$122	\$57	\$6,748	\$3,150	\$139	\$65
FY2036	\$46,745	\$19,406	\$17,181	\$7,133	\$8,131	\$3,376	\$8,212	\$3,409	\$1,999	\$830	\$4,006	\$1,663	\$126	\$52	\$6,948	\$2,884	\$143	\$59
FY2037	\$48,125	\$17,566	\$17,688	\$6,456	\$8,371	\$3,055	\$8,455	\$3,086	\$2,058	\$751	\$4,124	\$1,505	\$129	\$47	\$7,153	\$2,611	\$147	\$54
FY2038	\$49,546	\$15,671	\$18,210	\$5,760	\$8,618	\$2,726	\$8,704	\$2,753	\$2,119	\$670	\$4,246	\$1,343	\$133	\$42	\$7,364	\$2,329	\$151	\$48
FY2039	\$51,008	\$13,720	\$18,748	\$5,043	\$8,873	\$2,387	\$8,961	\$2,410	\$2,181	\$587	\$4,371	\$1,176	\$137	\$37	\$7,581	\$2,039	\$156	\$42
FY2040	\$52,514	\$11,712	\$19,301	\$4,305	\$9,135	\$2,037	\$9,226	\$2,058	\$2,246	\$501	\$4,500	\$1,004	\$141	\$31	\$7,805	\$1,741	\$160	\$36
FY2041	\$54,065	\$9,644	\$19,871	\$3,545	\$9,404	\$1,678	\$9,498	\$1,694	\$2,312	\$412	\$4,633	\$826	\$145	\$26	\$8,036	\$1,433	\$165	\$29
FY2042	\$55,661	\$7,516	\$20,458	\$2,762	\$9,682	\$1,307	\$9,779	\$1,320	\$2,380	\$321	\$4,770	\$644	\$149	\$20	\$8,273	\$1,117	\$170	\$23
FY2043	\$57,304	\$5,324	\$21,062	\$1,957	\$9,968	\$926	\$10,067	\$935	\$2,451	\$228	\$4,911	\$456	\$154	\$14	\$8,517	\$791	\$175	\$16
FY2044	\$30,225	\$3,068	\$11,109	\$1,128	\$5,258	\$534	\$5,310	\$539	\$1,293	\$131	\$2,590	\$263	\$81	\$8	\$4,492	\$456	\$92	\$9
FY2045	\$19,415	\$1,796	\$7,136	\$660	\$3,377	\$312	\$3,411	\$315	\$830	\$77	\$1,664	\$154	\$52	\$5	\$2,886	\$267	\$59	\$5
FY2046	\$12,349	\$942	\$4,539	\$346	\$2,148	\$164	\$2,169	\$165	\$528	\$40	\$1,058	\$81	\$33	\$3	\$1,835	\$140	\$38	\$3
FY2047	\$4,043	\$380	\$1,486	\$140	\$703	\$66	\$710	\$67	\$173	\$16	\$346	\$33	\$11	\$1	\$601	\$56	\$12	\$1
FY2048	\$3,729	\$183	\$1,370	\$67	\$649	\$32	\$655	\$32	\$159	\$8	\$320	\$16	\$10	\$0	\$554	\$27	\$11	\$1
<b>Total</b>	<b>\$1,068,837</b>	<b>\$636,447</b>	<b>\$392,844</b>	<b>\$233,922</b>	<b>\$185,920</b>	<b>\$110,707</b>	<b>\$187,774</b>	<b>\$111,812</b>	<b>\$45,707</b>	<b>\$27,217</b>	<b>\$91,597</b>	<b>\$54,542</b>	<b>\$2,870</b>	<b>\$1,709</b>	<b>\$158,862</b>	<b>\$94,595</b>	<b>\$3,263</b>	<b>\$1,943</b>

## Debt Assumptions

- 1 Debt maturity is assumed to be 25 years.
- 2 Principal repayment structure is based on 14.5 year average age of debt.
- 3 Issuance costs are assumed to equal a fixed \$650,000 payment plus 0.75% of the par value of the issuance.
- 4 Debt issuances projected for June of each fiscal year.
- 5 The jurisdictions will be billed and the first payment will be due the next fiscal year in October and January, respectively.

## Appendix H - Operating Statistics

### Metrobus Revenue Vehicle Fleet Management Plan

The Metrobus Revenue Vehicle Fleet Management Plan is a statement of the processes and practices by which Metro establishes its current and projected Metrobus revenue vehicle fleet and facilities requirements. It includes a description of revenue service planned to accommodate Metrobus ridership demand, service adjustments, as well as an assessment and projection of needs for Metrobus maintenance programs and facilities.

#### Metrobus Statistics

	FY2015 Actual	FY2016 Actual	FY2017 Approved	FY2018 Approved
<b>STATISTICS:</b>				
Total Bus Miles (000s)	51,075	51,424	50,594	48,661
Revenue (budget) Bus Miles (000s)	40,451	38,877	38,407	37,675
Total Passengers (000s)	132,902	127,432	135,600	116,968
Bus Fleet Size (Year End)	1,507	1,507	1,583	1,583
Total Passenger Revenue (\$000s)	\$155,171	\$150,044	\$160,945	\$160,659
Total Operating Revenue (\$000s)	\$176,123	\$166,066	\$179,724	\$182,378
Total Operating Expenses (\$000s)	\$582,399	\$584,986	\$653,281	\$689,799
Gross Subsidy (000s)	\$406,276	\$418,920	\$473,557	\$507,421
<b>RATIOS:</b>				
Cost Per Total Bus Mile	\$11.40	\$11.38	\$12.91	\$14.18
Passengers Per Bus	\$88.19	\$84.56	\$85.66	\$73.89
Passengers Per Scheduled Bus Mile	\$3.29	\$3.28	\$3.53	\$3.10
Cost Per Passenger	\$4.38	\$4.59	\$4.82	\$5.90
Subsidy Per Passenger	\$3.06	\$3.29	\$3.49	\$4.34
Average Passenger Fare *	\$1.17	\$1.18	\$1.19	\$1.37
Percentage of Operating Cost Recovered from Passenger Revenues	26.6%	25.6%	24.6%	23.3%
Percentage of Operating Cost Recovered from all Operating Revenues	30.2%	28.4%	27.5%	26.4%

\* Average is lower than base fare due to the impact of the transfer discount, senior and student discounts, and passes

**Active Proposed Fleet**

	Maximum Scheduled Fleet*	Total Active Fleet*
Fiscal 2015 End of Year	1,294	1,526
Fiscal 2016 End of Year	1,305	1,537
Fiscal 2017 End of Year	1,281	1,583
Fiscal 2018 End of Year	1,289	1,583

\*Includes 35 strategic buses in accordance with fleet plan

**Age of Fleet**

Manufacturer	Fiscal Year Entered Service	Number of Fleet	Average Age
ORION V	2000	50	18
ORION VII - CNG	2005	149	13
HYBRID ELECTRIC	2006	50	12
CLEAN DIESEL	2006	116	12
NEW FLYER - CNG	2007	25	11
NABI	2008	22	10
NEW FLYER - HYBRID	2008	102	10
NEW FLYER - HYBRID	2009	100	9
NEW FLYER - HYBRID	2010	147	8
NEW FLYER - XCELSIOR	2011	100	7
NEW FLYER - XCELSIOR	2012	67	6
ORION VII - HYBRID	2012	25	6
ORION VII - CLEAN DIESEL	2012	27	6
NEW FLYER - XCELSIOR	2013	104	5
NABI - BRT	2014	104	4
NEW FLYER XCELSIOR HYBRID	2015	21	3
NEW FLYER XCELSIOR HYBRID	2015	29	3
NEW FLYER XCELSIOR CNG	2015	30	3
NEW FLYER XCELSIOR HYBRID	2016	34	2
NEW FLYER XCELSIOR CNG	2016	62	2
NEW FLYER XCELSIOR HYBRID	2017	47	2
NEW FLYER XCELSIOR CNG	2017	72	2
NEW FLYER XCELSIOR CNG	2018	90	0
NEW FLYER XCELSIOR HYBRID	2018	10	0
<b>TOTAL</b>		<b>1,583</b>	<b>6.30</b>

## Bus Fleet Size by Garage

Garage	Fiscal 2018 Maximum Scheduled Fleet	Total Fleet	Spare Ratio
Bladensburg	223	264	18.4%
Shepherd Parkway	192	249	16.7%
Northern	129	173	26.4%
Western	100	116	16.0%
Southern Avenue	66	77	16.7%
Four Mile Run	183	217	18.6%
Landover	145	183	19.3%
Montgomery	168	199	15.4%
West Ox	83	105	26.5%
<b>SYSTEM TOTAL</b>	<b>1,289</b>	<b>1,583</b>	<b>18.9%</b>

## Comparison of Bus Miles

	FY2015 Actual	FY2016 Actual	FY2017 Approved	FY2018 Approved
<b>Total Scheduled*</b>	<b>49,740,260</b>	<b>50,080,598</b>	<b>49,278,234</b>	<b>47,360,806</b>
Bus Bridges	600,000	600,000	600,000	592,801
Special Service	100,000	100,000	100,000	98,800
Change-Offs	277,403	281,025	268,829	265,604
Yard Work	466,158	472,245	451,419	446,003
Missed Trips	(108,088)	(109,499)	(104,669)	(103,413)
<b>Total Unscheduled</b>	<b>1,335,473</b>	<b>1,343,772</b>	<b>1,315,579</b>	<b>1,299,795</b>
<b>TOTAL MILES</b>	<b>51,075,733</b>	<b>51,424,370</b>	<b>50,593,813</b>	<b>48,660,601</b>
Estimated miles of articulated bus included in above miles	1,900,948	1,900,948	1,900,948	1,628,570

\* Strategic miles included in Scheduled Miles

### Bus Operator Payhours

Category	FY2018 Bus Operator Wages		
	Payhours	Average Hourly Rate	Budget
Scheduled (straight + OT)*	5,270,776	\$26.99	\$142,242,096
Non-Scheduled OT/Special Event	249,948	\$26.99	\$6,745,331
Standing Extra	47,555	\$26.99	\$1,283,364
Utility	61,812	\$26.99	\$1,668,117
Training	311,485	\$18.35	\$5,715,749
Miscellaneous	206,958	\$26.99	\$5,585,163
Guarantees	54,940	\$26.99	\$1,482,662
Funeral Leave	5,746	\$26.99	\$155,067
Jury Duty	5,190	\$26.99	\$140,062
Vacation	359,123	\$26.99	\$9,691,630
Sick	307,511	\$26.99	\$8,298,780
Holiday	227,960	\$26.99	\$6,151,942
<b>Subtotal:</b>	<b>1,838,228</b>		<b>\$46,917,866</b>
<b>Grand Total:</b>	<b>7,109,004</b>	<b>\$26.61</b>	<b>\$189,159,962</b>

\* Pay hours for strategic buses are included in the FY18 Scheduled Pay Hours. Non-Scheduled OT includes funding for bus bridges, supporting Rail shutdowns, and elevator shuttles.

## Regional and Non-Regional Metrobus Routes

Metrobus routes are designated as either regional or non-regional. The cost of providing Metrobus service on regional routes is allocated to all of the Metro contributing jurisdictions. Costs associated with non-regional are allocated to a greater degree to the jurisdiction receiving the benefit of the non-regional route.

The Metro Board of Directors approves the designation of regional or non-regional Metrobus routes. The factors used in making the determination of regional and non-regional routes are:

- alignment of inter-jurisdictional routes
- routes operating on arterial streets
- routes that serve specific regional activity centers and
- route cost effectiveness

Metrobus operating costs can be expressed in terms of cost per platform hour. Platform hours include both revenue and non-revenue (sometimes called “deadhead”) service, and this measure captures the total time between a bus leaving its storage and maintenance facility and its return at the end of the day. For the FY2018 budget, the average cost per platform hour for all routes is \$161.12. For the allocation of the FY2018 operating subsidy, the budgeted cost per platform hour for non-regional routes (which has certain overhead and administrative expenses removed) is \$117.62.

### Metro Regional and Non Regional Route Summary Platform Hours

	Total Service FY2011	Total Service FY2012	Total Service FY2013	Total Service FY2014	Total Service FY2015	Total Service FY2016	Total Service FY2017	Total Service FY2018
<b>Regional Routes</b>								
District of Columbia	1,616,829	1,637,513	1,701,790	1,691,338	1,755,539	1,783,989	1,756,066	1,768,469
Maryland	830,288	822,385	874,355	868,570	886,898	893,716	892,750	912,623
Virginia	738,549	743,905	798,923	800,416	823,206	830,318	837,830	827,814
Totals for Regional:	3,185,666	3,203,803	3,375,068	3,360,324	3,465,643	3,508,023	3,486,645	3,508,905
<b>Non-Regional Routes</b>								
District of Columbia	415,015	396,675	394,654	380,811	381,898	368,793	368,025	346,502
Maryland	385,773	387,451	391,759	379,565	379,118	387,432	387,121	388,031
Virginia	104,476	103,320	117,305	111,991	129,831	132,187	132,237	135,056
Totals for Non-Regional:	905,264	887,446	903,718	872,367	890,847	888,413	887,383	869,590
<b>TOTAL METROBUS ROUTES</b>	<b>4,090,930</b>	<b>4,091,249</b>	<b>4,278,786</b>	<b>4,232,691</b>	<b>4,356,490</b>	<b>4,396,435</b>	<b>4,374,028</b>	<b>4,378,495</b>

**District of Columbia Regional Routes  
FY2018 Miles and Hours**

Line	Line Name	Routes	Revenue Miles	Revenue Hours	Platform Miles	Platform Hours
11	Benning Road-H St Exp	X9	83,258	9,650	120,048	12,125
14	Benning Road-H Street	X2	454,576	67,408	503,418	71,588
18	East Capitol Street-Cardozo	96,97	500,186	55,650	601,503	62,129
22	Glover Park-Federal Triangle	D1	24,719	3,610	47,852	5,428
32	Connecticut Avenue	L1,2	243,284	30,012	289,956	39,955
35	Crosstown	H2,3,4	389,843	49,895	448,309	54,363
37	Mac Blvd-Geotown	D5	26,185	2,993	46,664	4,560
42	Pennsylvania Avenue Limited	39	52,188	6,663	116,715	10,988
43	Fort Totten-Petworth	60,64	273,184	38,204	305,521	41,283
52	14th Street	52,53,54	520,631	93,953	589,647	102,007
55	Sibley Hosp. - Stad. Armory	D6	387,955	49,432	473,588	56,185
57	Fairfax Village-L'Enfant Plaza	V5	25,738	2,917	46,422	4,498
59	Takoma-Petworth	62,63	206,975	28,345	240,025	31,877
62	Brookland-Potomac Park	H1	23,435	3,858	43,105	5,415
75	Massachusetts Avenue	N2,4,6	319,379	34,004	393,084	39,840
77	Military Road-Crosstown	E4	304,764	34,887	323,500	36,633
79	Ivy City - Fort Totten	E2	107,811	13,320	121,353	14,323
81	Mount Pleasant	42,43	280,218	52,187	393,348	61,032
86	North Capitol Street	80	406,501	59,286	454,288	63,047
89	P Street-Ledroit Park	G2	135,059	23,217	167,900	26,538
93	Pennsylvania Avenue	32,34,36	493,777	63,974	780,569	84,149
95	Deanwood-Alabama Avenue	W4	497,422	50,088	561,276	54,729
99	Wisconsin Avenue	31,33	341,134	53,400	396,846	58,899
100	Wisconsin Avenue Limited	37	36,743	5,054	79,160	8,817
101	Rhode Island Avenue	G8	269,302	35,374	317,140	39,130
107	Georgia Avenue Metro Extra	79	381,021	44,412	421,982	48,255
108	16Th Street	S2,4	857,184	98,315	994,542	109,768
109	16Th Street-Potomac Park	S1	58,626	8,310	110,586	13,800
111	ML King Jr Avenue Limited	A9	61,798	6,483	108,555	9,508
112	16th Street Exp	S9	199,937	20,616	244,939	25,098
113	Friendship Heights - Southeast	30N, 30S	430,204	51,170	458,475	53,430
118	Georgia Avenue-7th Street	70	527,467	73,673	663,249	80,717
119	Convention Center- SW Waterfront Line	74	112,930	17,161	140,287	20,077
130	U Street-Garfield	90,92	658,222	103,177	821,898	115,669
132	Benning Heights-M Street	V1	43,610	5,479	81,063	7,942
133	Capitol Heights- Minn Ave	V2,4	451,451	51,464	520,124	56,430
134	Deanwood- Minnesota Ave.	U7	68,678	8,914	84,550	9,963
135	Mayfair-Marshall Heights	U5,6	247,379	26,693	278,412	29,345
141	Stanton Road	94	71,605	10,272	85,493	11,294
150	Bladensburg Road-Anacostia	B2	467,604	56,473	521,029	60,205
151	Benning Road	X1,3	56,748	6,696	112,611	10,982
581	Anacostia-Congress Heights	A2,6,7,8	627,791	67,956	745,683	76,347
582	Anacostia-Fort Drum	A4,W5	337,450	34,499	357,559	36,161
587	South Capitol St Limited	W9	19,898	2,617	36,242	3,938
<b>SUBTOTAL Regional DC</b>			<b>12,083,865</b>	<b>1,561,760</b>	<b>14,648,516</b>	<b>1,768,469</b>

**District of Columbia Non Regional Routes  
FY2018 Miles and Hours**

Line	Line Name	Routes	Revenue Miles	Revenue Hours	Platform Miles	Platform Hours
15	Garfield-Anacostia Loop	W6,8	218,601	25,896	254,193	28,526
25	Maryland Avenue	X8	61,034	8,259	66,289	8,755
34	Brookland-Fort Lincoln	H6	194,340	19,247	200,318	19,798
44	Capitol Hts-Benning Hts	U8	134,434	18,355	145,317	19,384
45	Hospital Center	D8	287,989	36,030	334,251	40,403
46	Fairfax Village	M6	126,870	12,997	154,771	14,888
49	Fort Lincoln Shuttle	B8,9	54,230	5,308	56,140	5,513
51	Glover Park-Dupont Circle	D2	136,822	16,591	157,005	18,085
56	Ivy City-Franklin Square	D4	112,555	18,270	135,380	20,220
71	Chevy Chase	E6	64,783	5,621	65,403	5,804
78	Sheriff Road-River Terrace	U4	107,135	10,157	126,068	12,202
82	Shipley Terrace-Ft. Drum	W1	102,079	10,724	118,677	12,172
84	Nebraska Avenue	M4	101,777	9,831	107,848	10,325
91	Park Road-Brookland	H8,9	224,069	29,887	251,592	32,413
158	United Medical Ctr.-Anacostia	W2,3	330,531	34,472	373,771	37,583
504	Anacostia High School	A31,32,33	1,716	333	4,904	653
517	Deal Junior High School	D31,32,33,34	9,533	1,267	23,363	2,592
519	Eastern High School	E32	1,590	208	4,923	422
539	Sousa Middle School	S35	1,617	144	5,205	349
540	Phelps High School	S41	1,284	144	3,028	330
544	Anacostia-Eckington	P6	314,830	45,386	387,095	49,503
545	Mckinley High School	M31	1,571	304	5,397	694
549	Duke Ellington School Of The Arts	D51	1,897	227	3,892	365
550	Wilson High School	W45,47	2,483	311	6,198	685
583	Takoma-Fort Totten	K2	28,244	3,712	43,531	4,840
<b>SUBTOTAL Non-Regional DC</b>			<b>2,622,012</b>	<b>313,679</b>	<b>3,034,557</b>	<b>346,502</b>

**Maryland Regional Routes  
FY2018 Miles and Hours**

Line	Line Name	Routes	Revenue Miles	Revenue Hours	Platform Miles	Platform Hours
9	Annapolis Road	T18	281,952	25,594	304,132	27,474
13	Greenbelt-Twinbrook	C2,4	887,777	84,005	1,110,162	95,801
16	Bethesda-Silver Spring	J1,2,3	577,655	53,519	727,765	60,781
28	Chillum Road	F1,2	214,839	17,525	284,263	20,392
29	Clinton	C11,13	47,458	3,342	82,690	5,092
41	Eastover-Addison Road	P12	463,497	41,275	578,282	46,388
47	Forestville	K12,13	176,496	16,089	307,836	20,917
53	Georgia Avenue-Maryland	Y2,7,8	671,534	64,097	873,953	72,772
63	Hillcrest Heights	C12,14	96,708	9,080	119,009	10,573
73	Marlow Heights-Temple Hills	H11,12,13	158,277	14,448	310,865	19,322
74	College Park	83,83X,86	501,747	45,170	607,887	50,609
83	New Hampshire Avenue Limited	K9	95,435	9,778	166,039	12,932
85	New Hampshire Avenue-Md	K6	377,023	39,057	548,754	46,857
88	Oxon Hill-Fort Washington	P17,18,19	229,489	16,279	415,521	24,977
90	Martin Luther King Jr. Highway	A12	424,725	31,489	485,379	35,222
97	New Carrollton-Silver Spring	F4	466,578	46,418	508,531	49,290
98	New Carrollton-Fort Totten	F6	198,216	15,775	224,978	17,879
103	College Park-White Flint	C8	353,413	26,954	370,107	27,659
123	Veirs Mill Road	Q1,2,4,5,6	652,290	60,407	737,549	65,052
147	Fairland	Z8	360,426	30,280	499,623	36,401
274	College Park-Suppl Service	83X	0	0	0	0
542	RI Ave. - New Carrollton	T14	183,179	15,656	204,617	17,143
580	Bock Road	W13,14	122,245	9,216	224,047	14,208
584	Oxon Hill-Suitland	D12,13,14	608,084	46,481	731,330	54,235
629	College Park-Bethesda	J4	91,530	9,113	159,623	12,104
790	District Heights-Suitland	V12	193,963	16,400	246,547	19,285
800	Riggs Road	R1,2	271,412	22,911	342,435	26,749
17	National Harbor-Alexandria Line	NH2	270,446	20,696	307,211	22,509
<b>SUBTOTAL Regional MD</b>			<b>8,976,394</b>	<b>791,054</b>	<b>11,479,135</b>	<b>912,623</b>

**Maryland Non Regional Routes  
FY2018 Miles and Hours**

Line	Line Name	Routes	Revenue Miles	Revenue Hours	Platform Miles	Platform Hours
6	I-270 Exp	J7,9	89,328	4,767	121,390	6,200
7	National Harbor-Southern Avenue Line	NH1	196,878	15,180	242,892	18,262
10	Ardwick Industrial Park Shuttle	F12	81,511	6,240	94,291	6,919
19	Bowie-Belair	B24	155,428	9,725	170,634	10,445
20	Bowie State University	B21,22	172,880	6,791	198,585	7,760
26	Pointer Ridge	C28	121,850	5,238	147,170	6,270
30	Colesville-Ashton	Z2	137,460	9,104	177,323	10,954
33	Connecticut Avenue-Md	L8	226,753	18,549	261,000	20,617
36	Kenilworth Avenue	R12	193,187	15,089	239,732	17,042
38	District Heights-Seat Pleasant	V14	203,290	15,405	269,569	18,760
65	Bowie-New Carrollton	B27	58,313	3,108	62,645	3,446
67	Twinbrook-Silver Spring	J5	49,633	3,350	61,893	4,042
72	Marlboro Pike	J12	151,075	10,978	195,559	12,563
96	Langley Park -Cheverly Line	F8	182,788	15,101	251,251	17,947
102	River Road	T2	296,911	18,304	316,071	19,707
104	Laurel-Burtonsville Exp	Z7	97,058	5,902	203,243	9,195
105	Sheriff Road-Capitol Heights	F14	235,023	18,810	258,713	20,007
146	Calverton-Westfarm	Z6	275,613	23,217	369,429	27,508
149	Cheverly-Wash Business Park	F13	116,403	8,602	125,558	9,114
152	Central Avenue	C21,22,26,29	392,067	23,486	489,243	28,142
252	Central Avenue Suppl Service	C27	25,975	1,234	50,080	2,225
525	Laurel	89,89M	159,256	9,142	208,698	10,859
526	Laurel Exp	87	133,652	7,211	188,235	9,079
527	Greenbelt-New Carrollton	G12,14	417,686	33,802	471,024	36,721
531	Greencastle-Briggs Chaney Exp.	Z11	122,933	8,757	223,042	12,891
634	Crofton-New Carrollton	B29	64,398	2,550	80,043	3,092
645	Indian Head Exp	W19	142,265	6,532	203,930	8,559
647	Greenbelt-Bwi Airport Exp	B30	409,351	16,153	446,493	17,433
802	Queens Chapel Road	R4	110,031	10,786	131,175	12,273
<b>SUBTOTAL Non- Regional MD</b>			<b>5,018,994</b>	<b>333,114</b>	<b>6,258,912</b>	<b>388,031</b>

**Virginia Regional Routes  
FY2018 Miles and Hours**

Line	Line Name	Routes	Revenue Miles	Revenue Hours	Platform Miles	Platform Hours
3	Landmark-Ballston	25B	234,374	25,549	291,565	28,703
5	Leesburg Pike	28A	617,284	56,106	703,474	63,446
8	Annandale	29C,G	125,095	8,565	281,597	14,356
12	Ballston-Farragut Square	38B	230,030	34,162	448,448	44,125
23	Leesburg Pike Limited	28X	93,810	7,042	124,075	8,683
27	Chain Bridge Road	15K,L	95,838	5,679	163,278	8,117
54	McLean-Crystal City	23A,B,T	518,478	48,912	611,916	53,937
58	Braeburn Drive - Pentagon Express	29W	83,990	3,283	101,403	4,175
94	Pershing Drive-Arlington Blvd	4A,B	212,980	22,619	279,702	26,919
106	Foxchase-Seminary Valley	8S,W,Z	140,188	8,214	166,173	9,819
121	Pimmit Hills-Falls Church	3T	151,214	9,211	195,732	10,900
126	Washington Boulevard-Dunn Loring	2A	125,398	24,921	248,357	30,382
127	Tysons Corner-Dunn Loring	2T	131,353	12,463	173,209	13,967
128	Fair Oaks-Jermantown Road	2B	215,001	16,461	272,862	18,746
131	Richmond Highway Exp	REX (R99)	379,412	35,634	531,965	43,811
137	Wilson Boulevard-Vienna	1A,B	452,806	42,250	644,056	50,209
138	Lee Highway-Farragut Square	3Y	30,720	3,683	67,895	5,878
139	Fair Oaks-Fairfax Boulevard	1C	249,614	20,330	285,858	21,736
156	Hunting Point-Ballston	10B	290,318	31,614	337,269	34,628
176	Lincolnia-Park Center-Pentagon	7C,P	41,201	3,010	47,803	3,471
512	Barcroft-South Fairlington	22A,B,C,F	304,768	26,418	384,126	31,293
522	Columbia Pike-Farragut Square	16Y	88,048	9,367	187,793	15,558
692	Annandale-East Falls Church	26A	129,483	10,088	185,403	12,325
2	Hunting Point-Pentagon	10A,E	222,220	31,797	463,360	36,224
4	Alexandria-Fairfax	29K,N	379,507	30,257	471,315	35,169
39	Arlington-Union Station	13Y	6,196	613	8,282	800
69	Annandale Road	3A	109,228	10,511	167,889	12,857
70	Lincolnia-North Fairlington	7A,F,Y	346,423	28,468	503,272	36,974
76	Lincolnia-Park Center-Pentagon	7W,X	70,390	5,713	140,038	8,871
110	Skyline City	28F,G	71,335	5,089	85,620	5,871
142	Columbia Pike	16A,B,E,J,P	477,616	49,283	568,068	54,930
143	Columbia Hts West-Pent City	16G,H,K	273,436	31,235	353,169	35,609
144	Columbia Pike-Federal Triangle	16X	77,821	7,356	130,051	10,411
157	Mt Vernon Exp	11Y	59,390	3,688	125,135	7,154
521	Annandale-Skyline City-Pent.	16L	44,402	2,976	75,674	4,538
129	DC-Dulles	5A	589,292	20,755	619,770	23,217
<b>SUBTOTAL Regional VA</b>			<b>7,668,658</b>	<b>693,321</b>	<b>10,445,596</b>	<b>827,814</b>

**Virginia Non Regional Routes  
FY2018 Miles and Hours**

Line	Line Name	Routes	Revenue Miles	Revenue Hours	Platform Miles	Platform Hours
61	Kings Park Exp	17G,H,K,L	303,688	13,300	575,354	24,074
66	Kings Park	17A,B,F,M	203,783	9,924	317,196	14,453
68	Landmark-Pentagon	21A,D	77,781	5,249	183,503	9,738
80	Mark Center-Pentagon	7M	148,488	8,021	164,413	9,242
87	Orange Hunt	18G,H,J	128,590	6,567	241,895	10,879
148	Metroway Potomac Yard	MW1	224,978	32,188	246,996	34,108
541	Burke Centre	18P,R,S	207,868	10,749	427,742	19,578
640	Springfield Circulator	S80,91	9,413	11,320	56,276	12,984
<b>SUBTOTAL Non-Regional VA</b>			<b>1,304,589</b>	<b>97,317</b>	<b>2,213,375</b>	<b>135,056</b>

## Metrorail Revenue Railcar Fleet Management Plan

The Metrorail Revenue Vehicle Fleet Management Plan is a statement of the processes and practices by which Metro establishes its current and projected Metrorail revenue vehicle fleet size requirements and operating spare ratio. It documents how service goals are applied to existing and forecast levels of ridership to establish fleet requirements for Metrorail service, as well as how these requirements are affected by vehicle maintenance needs, expansions of the Metrorail system, and other factors affecting the operation of the system. Additionally, it documents the key challenges Metro faces in meeting its service and maintenance goals.

### Metrorail Statistics

	FY2015 Actual	FY2016 Actual*	FY2017 Approved	FY2018 Approved
<b>STATISTICS:</b>				
Total Railcar Miles (000s)	99,124	99,366	98,489	88,380
Total Revenue Service Miles (000s)	97,524	97,766	96,889	86,780
Total Passengers (000s)	206,396	191,348	203,500	178,505
Total Passenger Revenue (\$000s)	\$629,055	\$584,776	\$621,018	\$542,800
Total Operating Revenue (\$000s)	\$721,986	\$695,953	\$710,330	\$622,123
Total Operating Expense (\$000s)	\$965,392	\$1,013,054	\$972,504	\$983,447
Gross Subsidy (\$000s)	\$243,406	\$317,101	\$262,173	\$361,323
<b>RATIOS:</b>				
Passengers Per Revenue Service Mile	2.12	1.96	2.10	2.06
Cost Per Total Railcar Mile	\$9.74	\$10.20	\$9.87	\$11.13
Cost Per Passenger	\$4.68	\$5.29	\$4.78	\$5.51
Net Subsidy Per Passenger	\$1.18	\$1.62	\$1.29	\$2.02
Average Passenger Fare	\$3.05	\$3.06	\$3.05	\$3.04
Percentage of Operating Cost Recovered from Passenger Revenues	65.2%	57.7%	63.9%	55.2%
Percentage of Operating Cost Recovered from all Operating Revenues	74.8%	68.7%	73.0%	63.3%

\* Total Railcar Miles and Revenue Service Miles are schedule and not actual.

## Railcar Miles

	Total Service FY2015	Total Service FY2016	Total Service FY2017	Total Service FY2018
Red Line	27,916,500	28,011,000	27,886,100	24,343,000
Blue Line	12,848,700	13,858,400	12,953,100	15,158,000
Orange Line	14,595,100	14,368,900	14,421,400	13,192,900
Yellow Line	10,630,700	10,390,300	10,332,800	5,712,400
Green Line	12,276,900	12,132,400	12,101,000	11,429,300
Silver Line	16,698,700	16,447,300	16,637,300	14,387,600
<b>Scheduled Revenue Service Miles<sup>1</sup></b>	<b>94,966,600</b>	<b>95,208,300</b>	<b>94,331,700</b>	<b>84,223,200</b>
Verizon Arena	1,711,283	1,711,283	1,711,283	1,711,283
Gap Trains	360,000	360,000	360,000	360,000
National Baseball	486,000	486,000	486,000	486,000
<b>Sub-Total Revenue Service Miles</b>	<b>97,523,883</b>	<b>97,765,583</b>	<b>96,888,983</b>	<b>86,780,483</b>
Start-Up/Car Testing	200,000	200,000	200,000	200,000
Revenue Collection	700,000	700,000	700,000	700,000
Other	700,000	700,000	700,000	700,000
<b>Total Car Miles</b>	<b>99,123,883</b>	<b>99,365,583</b>	<b>98,488,983</b>	<b>88,380,483</b>

<sup>1</sup> Based on the FY18 Service Plan - Monday - Thursday from 5:00 a.m. - 11:30p.m; Friday from 5:00 a.m. - 1:00 a.m.; Saturday from 7:00 a.m. - 1:00 a.m.; and Sunday from 8:00 a.m. - 11:00 p.m.

## Payhours for Rail Operators

Category	FY2018 Train Operator Wages		
	Payhours	Average Hourly Rate	Budget
Scheduled F/T	1,074,938	\$31.27	\$33,613,311
Scheduled P/T <sup>1</sup>	44,790	\$31.68	\$1,418,947
Car Testing/Start Up	24,960	\$31.27	\$780,499
Interlocking Pay Hours	71,519	\$36.46	\$2,607,583
<b>Subtotal</b>	<b>1,216,207</b>		<b>\$38,420,340</b>
NonScheduled Overtime/Special Event	200,504	\$46.91	\$9,404,640
Standing Extra	10,136	\$31.27	\$316,967
Utility	30,404	\$36.46	\$1,108,512
Training	43,541	\$31.27	\$1,361,529
Retraining	25,731	\$31.27	\$804,621
Miscellaneous	25,216	\$31.27	\$788,504
Funeral/Other	1,547	\$31.27	\$48,378
Vacation	55,283	\$31.27	\$1,728,693
Sick	42,898	\$31.27	\$1,341,434
Holiday	29,031	\$31.27	\$907,799
<b>Subtotal</b>	<b>464,292</b>		<b>\$17,811,077</b>
<b>Total</b>	<b>1,680,499</b>		<b>\$56,231,417</b>

<sup>1</sup> Maximum 30-hour work week.

## Payhours for Station Managers

Category	FY2018 Station Manager Wages		
	Payhours	Average Hourly Rate	Budget
Scheduled F/T	966,454	\$32.95	\$31,844,659
NonScheduled Overtime/Special Event	125,792	\$49.43	\$6,217,288
Standing Extra	9,936	\$32.95	\$327,406
Utility	26,426	\$38.42	\$1,015,282
Training	23,173	\$32.95	\$763,547
Retraining	27,659	\$32.95	\$911,380
Miscellaneous	24,163	\$32.95	\$796,180
Funeral/Other	1,519	\$32.95	\$50,058
Vacation	28,036	\$32.95	\$923,787
Sick	31,368	\$32.95	\$1,033,568
Holiday	26,991	\$32.95	\$889,368
<b>Subtotal</b>	<b>325,065</b>		<b>\$12,927,863</b>
<b>Total</b>	<b>1,291,519</b>		<b>\$44,772,522</b>
<b>GRAND TOTAL</b>			<b>\$101,003,939</b>

## Rail Peak Period Service Levels

	Total Service FY2015	Total Service FY2016	Total Service FY2017	Total Service FY2018
Red Line	Glenmont/Shady Grove Silver Spring/Grosvenor	Glenmont/Shady Grove Silver Spring/Grosvenor	Glenmont/Shady Grove Silver Spring/Grosvenor	Glenmont/Shady Grove Silver Spring/Grosvenor
Blue Line	Largo/Franconia-Springfield	Largo/Franconia-Springfield	Largo/Franconia-Springfield	Largo/Franconia-Springfield
Orange Line	New Carrollton/Vienna	New Carrollton/Vienna	New Carrollton/Vienna	New Carrollton/Vienna
Yellow Line	Huntington/Mt. Vernon Square Franconia-Springfield/ Greenbelt	Huntington/Mt. Vernon Square Franconia-Springfield/ Greenbelt	Huntington/Mt. Vernon Square Franconia-Springfield/ Greenbelt	Huntington/Mt. Vernon Square
Green Line	Greenbelt/Branch Ave.	Greenbelt/Branch Ave.	Greenbelt/Branch Ave.	Greenbelt/Branch Ave.
Silver Line	Weihle-Reston East/Largo	Weihle-Reston East/Largo	Weihle-Reston East/Largo	Weihle-Reston East/Largo

## RUSH HOURS TRAINS

Red Line	41	41	41	34
Blue Line	12	12	12	19
Orange Line	22	22	22	20
Yellow Line	21	21	21	9
Green Line	18	18	18	17
Silver Line	26	26	26	20
Gap	3	3	3	6
<b>TOTAL</b>	<b>143</b>	<b>143</b>	<b>143</b>	<b>125</b>

## Rail Service Levels

		Total Service FY2015	Total Service FY2016	Total Service FY2017	Total Service FY2018
<b>RUSH HOUR HEADWAYS (MINUTES BETWEEN TRAINS) BY LINE</b>					
Red Line	Glenmont-Shady Grove	6	6	6	8
	Silver Spring-Grosvenor	6	6	6	8
Orange Line *	Vienna - New Carrollton	6	6	6	8
	Vienna - Largo				
Blue Line	Largo/Franconia-Springfield	12	12	12	8
Yellow Line	Huntington - Mt. Vernon Square	6	6	6	8
	Greenbelt - Franconia Springfield	12	12	12	8
Green Line *	Greenbelt/Branch Ave.	6	6	6	8
Silver Line	Weihle-Reston East/Largo	6	6	6	8
<b>NON-RUSH HOUR HEADWAYS BY LINE (MIDDAY-WEEKDAY/SAT/SUN/LATE NIGHT)</b>					
Red Line	Glenmont-Shady Grove	12/12/15/15	12/12/15/15	12/12/15/15	12/12/15/15
	Silver Spring-Shady Grove	12/12/15	12/12/15	12/12/15	12/12/15
Orange Line	New Carrollton/Vienna	12/12/15/20	12/12/15/20	12/12/15/20	12/12/15/20
Blue Line	Largo/Franconia-Springfield	12/12/15/20	12/12/15/20	12/12/15/20	12/12/15/20
Yellow Line	Huntington-Fort Totten	12/12/15/20	12/12/15/20	12/12/15/20	12/12/15/20
Green Line	Greenbelt/Branch Ave.	12/12/15/20	12/12/15/20	12/12/15/20	12/12/15/20
Silver Line	Weihle-Reston East/Largo	12/12/15/20	12/12/15/20	12/12/15/20	12/12/15/20
<b>AVERAGE COMBINED HEADWAYS FOR KEY SEGMENTS FOR FY2018</b>					
Mid-day		Weekdays	Saturday	Sunday	
Red	Silver Spring to Grosvenor	6	6	7.5	
Orange/Blue/Silver	Rosslyn to Stadium Armory	4	4	5	
Yellow/Green	L'Enfant Plaza to Mount Vernon	6	6	7.5	
Yellow/Blue	King Street to Pentagon	6	6	7.5	

\* During times of observed peaking in ridership, additional trains ("trippers") are operated to reduce crowding.

## Rail Service Levels

	Total Service FY2015	Total Service FY2016	Total Service FY2017	Total Service FY2018
<b>PEAK SCHEDULED RAILCARS</b>				
Red Line	288	288	288	240
Blue Line	84	84	84	138
Orange Line	154	154	154	144
Yellow Line	126	126	126	54
Green Line	128	128	128	122
Silver Line	156	156	156	120
Gap	18	18	18	36
<b>Total Scheduled Car</b>	<b>954</b>	<b>954</b>	<b>954</b>	<b>854</b>
Spares <sup>1</sup>	146	146	146	129
Revenue Collection	4	4	4	4
<b>Total Car Requirement</b>	<b>1,104</b>	<b>1,104</b>	<b>1,104</b>	<b>987</b>

<sup>1</sup> Spares were 15% for FY2015 - FY2018

**HOURS OF OPERATION**

Weekday (Mon-Thur)	19	19	19	19
Friday	22	22	22	20
Saturday	20	20	20	18
Sunday	17	17	17	15

**DAYS OF OPERATION**

Weekday	251	252	251	250
Saturday	57	57	57	58
Sunday	57	57	57	57

## Rail Service Levels

	Total Service FY2015	Total Service FY2016	Total Service FY2017	Total Service FY2018
<b>CARS PER TRAIN RUSH HOUR</b>				
Red Line	20-6's/21-8's	20-6's/21-8's	20-6's/21-8's	16-6's/18-8's
Blue Line	6-6's/6-8's	6-6's/6-8's	6-6's/6-8's	7-6's/12-8's
Orange Line	11-6's/11-8's	11-6's/11-8's	11-6's/11-8's	8-6's/12-8's
Yellow Line	21-6's	21-6's	21-6's	9-6's
Green Line	8-6's/10-8's	8-6's/10-8's	8-6's/10-8's	7-6's/10-8's
Silver Line	26-6's	26-6's	26-6's	20-6's
Gap	3's-6's	3's-6's	3's-6's	6-6's
<b>CARS PER TRAIN WEEKDAY BASE/NIGHT (AFTER 8 P.M.)</b>				
Red Line	6/6	6/6	6/6	6.75/6
Blue Line	6/6	6/6	6/6	6.75/6
Orange Line	6/6	6/6	6/6	6.75/6
Yellow Line	6/6	6/6	6/6	6/6
Green Line	6/6	6/6	6/6	6.75/6
Silver Line		6/6	6/6	6/6

## Railcar Fleet Storage Capacity

Location	Existing Storage Capacity	Current Fleet Need	Net Storage Capacity
Alexandria	176	173	3
Branch Ave	164	116	48
Brentwood	90	110	-20
Glenmont	140	80	60
Greenbelt	280	163	117
Largo	42	42	0
New Carrollton	124	143	-19
Shady Grove	168	158	10
West Falls Church	182	185	-3
<b>Total</b>	<b>1366</b>	<b>1170</b>	<b>196</b>

## Railcar Fleet Profile

Manufacturer	Series	Years Purchased	Originally Purchased	Currently Owned	Number for Services*
Rohr Industries	1000	1974-1978	300	70	—
Breda Construzioni Ferroviarie	2000	1983-1984	76	76	76
Breda Construzioni Ferroviarie	3000	1984-1988	288	284	282
Breda Construzioni Ferroviarie	4000	1992-1994	100	74	—
Construcciones y Auxiliar de Ferrocarriles, S.A. (CAF)	5000	2001-2004	192	192	186
Alstom	6000	2006-2008	184	184	182
Kawasaki	7000	2014-Present	378	356	352
<b>Total</b>			<b>1,518</b>	<b>1,236</b>	<b>1,078</b>

\* There are six (6) 1000 Series vehicles dedicated for revenue collection and (252) 1000 series and (68) 4000 series decommissioned vehicles. As of June 20, 2017, (378) 7000 series cars have been delivered, 356 vehicles have been accepted, and 352 vehicles are in service. The 7000 series railcars will replace the 1000, 4000 and 5000 Series railcars.

## MetroAccess Revenue Vehicle Fleet Management Plan

The MetroAccess Revenue Vehicle Fleet Management Plan is a tool that provides information, analysis, and recommendations about the anticipated growth in paratransit ridership, and the current and projected revenue vehicle requirements for MetroAccess to meet the demand as well as an assessment and projection of needs for paratransit vehicle maintenance.

### MetroAccess Statistics

	FY2015 Actual	FY2016 Actual	FY2017 Approved	FY2018 Approved
<b>STATISTICS:</b>				
MetroAccess - Dedicated Fleet:	650	675	700	725
Total Van Miles (000s)	25,645	26,410	28,000	28,100
Revenue Miles/Van (000s)	39.5	39.1	40.0	38.8
Total Passengers	2,234,809	2,280,730	2,420,000	2,400,000
Passengers per Van	3,438	3,379	3,486	3,310
Total Passenger Revenue (\$000s)	\$9,045	\$9,156	\$9,972	\$9,732
Total Revenue (\$000s)	\$9,045	\$9,156	\$9,972	\$9,732
Total Operating Expense (000s)	\$113,424	\$117,910	\$119,563	\$120,533
Gross Subsidy (\$000s)	\$104,380	\$108,753	\$109,591	\$110,801

### RATIOS:

Cost Per Passenger	\$50.75	\$51.70	\$49.41	\$50.22
Subsidy Per Passenger*	\$46.71	\$47.68	\$45.29	\$46.17
Percentage of Operating Cost Recovered from Passenger Revenues	8.0%	7.8%	8.3%	8.1%

\* MetroAccess policy provides two complimentary one-way trip credits, with a value of \$3 each, in each instance where the scheduled pick-up window is not met. Eligibility assessment trips are complimentary and Personal Care Attendants (PCAs) ride free in accordance with the ADA, so the calculation applies to all ridership.

## MetroAccess Statistics - Fleet

	FY2015 Actual	FY2016 Actual	FY2017 Approved	FY2018 Approved
Total # of Vans in Fleet	634	659	684	725
Total # of Low Floor Vans in Fleet	16	16	16	0
Total # of Shuttles in Fleet	0	0	0	0
<b>Total Fleet</b>	<b>650</b>	<b>675</b>	<b>700</b>	<b>725</b>
Spare Ratio	11.5%	15.0%	15.0%	15.0%

## MetroAccess Statistics

Manufacturer	Fiscal Year Purchased	Number of Vans	Vehicle Type
FORD	2018	225	Vans
FORD	2017	207	Vans
FORD	2016	—	Vans
FORD	2015	120	Vans
FORD	2014	120	Vans
FORD	2013	53	Vans
<b>Total Fleet Vehicles at End of FY2018</b>		<b>725</b>	

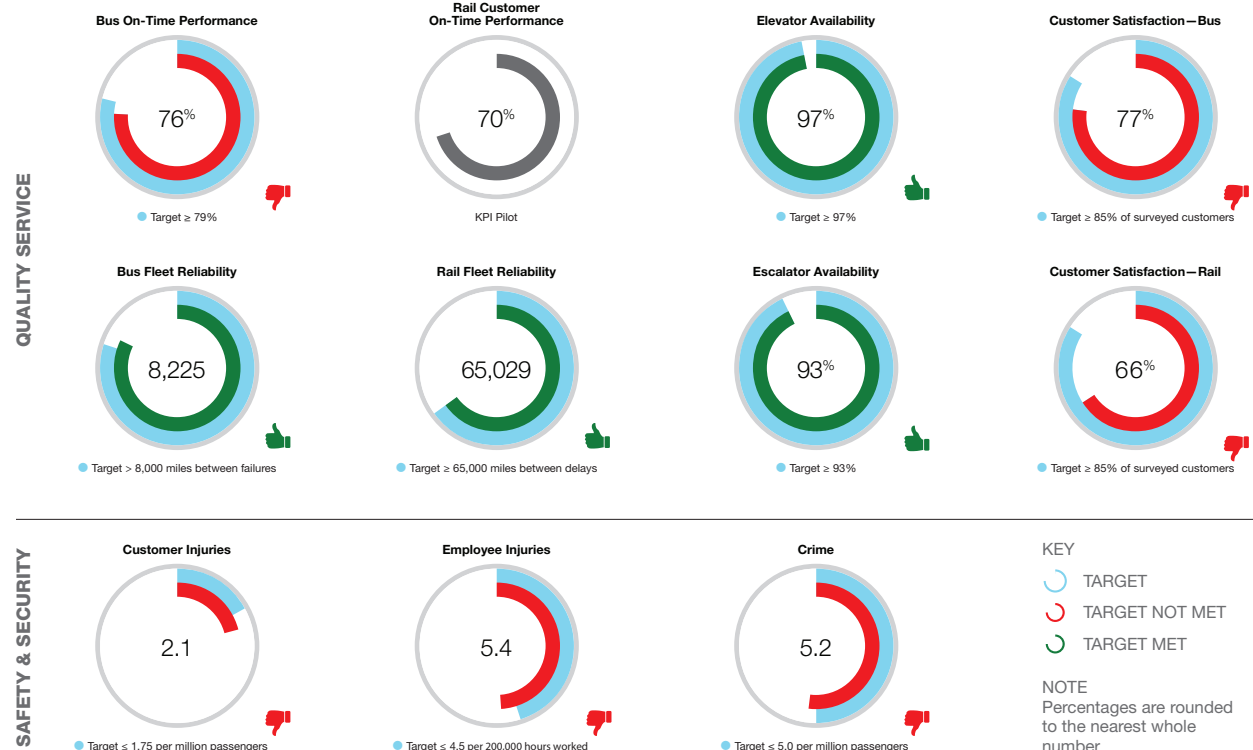
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# Appendix I - Vital Signs Report



## Performance



## Highlights

**Bus fleet reliability** experienced the most improvement since 2013 as a result of retrofits and proactive replacement of various subsystems and parts, completion of 100 mid-life overhauls for the year and replacement of 282 buses resulting in a better-than-target performance. **Bus on-time performance** was 3% worse than target of 79% for the year and declined 2% compared to 2015 due to buses running ahead of schedule and increases in weekday peak-period traffic congestion due to the SafeTrack program that began in the Q2/2016. **Bus customer satisfaction** remained statistically unchanged throughout the year at 77%.

In the area of **railcar reliability**, immediate parts shortage remedies, revamped mechanic training and the introduction of more 7000-series railcars resulted in 13% fewer railcar-related delays in 2016 than in 2015, meeting the 2016 target of 65,000 miles before causing a delay. These efforts permitted 70% of rail **customers** to be **on-time**, while 85% of trips were completed within five minutes of expected arrival

times. Customer perception of rail performance has plateaued over the year resulting in a **rail customer satisfaction** rating of 66%.

A more rigorous inspection process more than doubled unscheduled maintenance hours of more complex repairs causing **elevator availability** to just meet the 97% target. Likewise, repairs resulting from preventive maintenance inspections took twice as long to complete; however **escalator availability** was slightly better than target at 93.5%, consistent with the previous year.

While rail customer injuries declined, bus injuries increased due to more non-preventable collisions, resulting in the overall **customer injury rate** increasing slightly to 2.1, worse than target of 1.75. **Employee injuries** were worse than target of 4.5 per 200,000 hours worked also in part due to an increase in non-preventable collisions, stress injuries, and injuries caused by inattentiveness resulting in an annual rate of 5.4. A 9% decrease in total ridership resulted in a slight increase in the total **crime rate**, despite 5% fewer Part I crimes committed in 2016 compared to 2015.

## Path to Improved Performance



## KPI: Bus On-Time Performance

## QUALITY SERVICE



### Why did performance change?

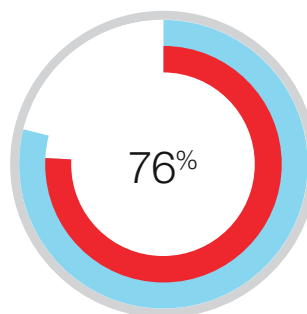
- ▶ Overall bus on-time performance (OTP) declined 2% compared to last year with performance across all six of the daily service periods declining due to an increase in buses running ahead of schedule and arriving early at bus stops.
  - » **PM Peak period service** (3PM–7PM)—27% of total bus service delivered – continued to be the lowest performing service period with 68% of buses on-time, falling 2% from last year.
  - » **Late Night period service** (11PM–4AM)—5% of total bus service delivered—on-time performance fell 3%, the largest performance decline out of all service periods, with 77% of buses on-time.
- ▶ Priority corridor route service—49% of total bus service delivered—impacted overall bus service reliability the greatest with performance declining across all Jurisdictions. DC on-time performance fell 7% compared to last year with only 71% on-time, Maryland on-time performance declined 5% with 75% on time, and Virginia on-time performance declined 6% with 82% on-time.
- ▶ Events that have impacted OTP in 2016 include additional severe weather snow plan days in Q1/2016 and the significant increase in weekday peak-period traffic congestion due to the SafeTrack program that began in Q2/2016.

### Key actions to improve performance

- ▶ Focus on reducing early arrivals through on-board bus technology and increased communication to operators
- ▶ Assess running time of low performing routes to determine if scheduling adjustments are needed
- ▶ Strategically place street managers to focus on actively managing low performing routes
- ▶ Continue to partner with bus planning & scheduling, DDOT, MTPD and Emergency Management to improve traffic patterns

#### ANNUAL PERFORMANCE

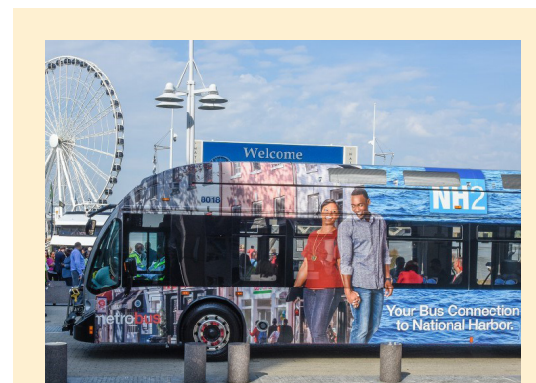
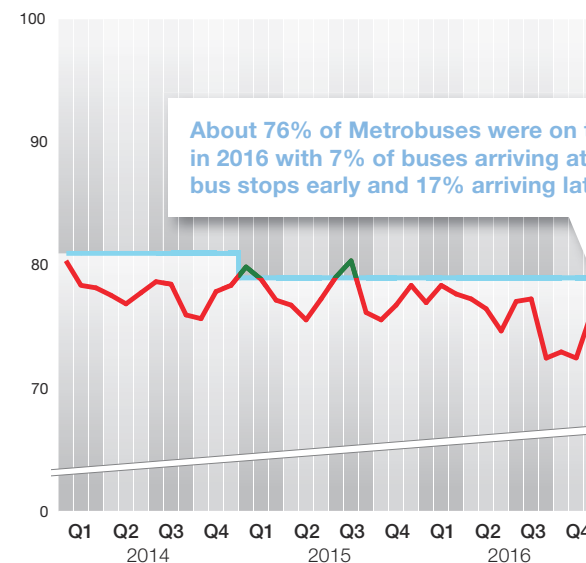
##### Bus On-Time Performance



● Target  $\geq 79\%$



#### 3-YEAR TREND IN PERFORMANCE



The new Metrobus route from Huntington Metro station to National Harbor began service in October 2016 and is the first route to directly link National Harbor and Virginia, and the first to cross the Wilson Bridge.

## KPI: Bus Fleet Reliability

QUALITY SERVICE

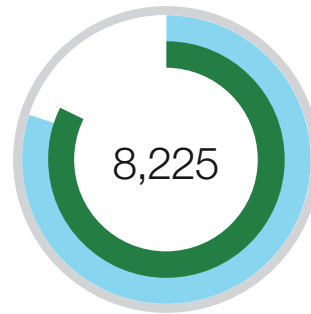


### Why did performance change?

- ▶ On average, buses traveled just over 8,200 miles between breakdown, a 16% improvement compared to prior year. Nearly all fleet types experienced improved reliability, most notably the fleets that provide the most service, due to a number of mitigating and proactive actions implemented by bus maintenance.
- ▶ Examples of contributing factors to improved fleet reliability:
  - » Replacement of older, less reliable buses (282 new buses placed into service in 2016)
  - » Completion of 100 mid-life overhauls annually
  - » Retrofits and proactive replacement of various subsystems and parts

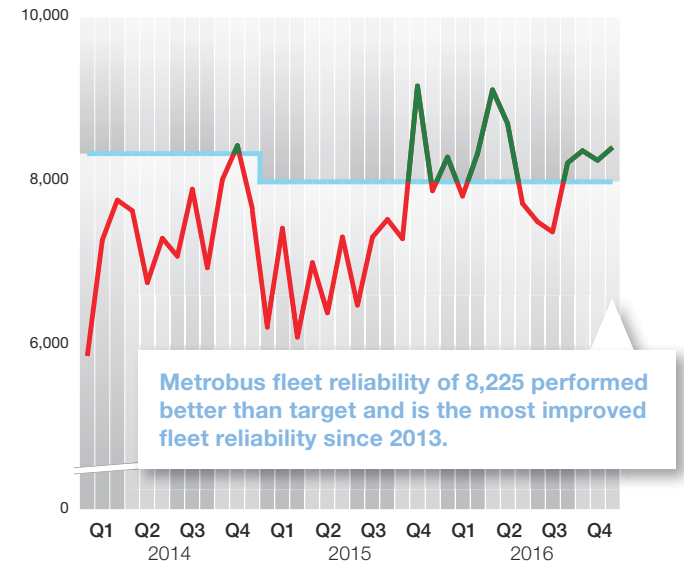
#### ANNUAL PERFORMANCE

##### Bus Fleet Reliability



- Target > 8,000 miles between failures

#### 3-YEAR TREND IN PERFORMANCE



### Key actions to improve performance

- ▶ Continue to retire less reliable, older buses, and complete mid-life overhauls annually
- ▶ Continue evaluation of new products (such as pulleys, hoses, and fluids) and adjust preventative maintenance cycles to improve reliability of the entire fleet
- ▶ Collaborate with manufacturers to complete retrofits, recalls, and replacement of defective parts:
  - » Continue to work with the 2012 Clean Diesel engine manufacturer to determine root cause of exhaust after treatment failures related to soot and carbon build up and revise maintenance schedules to prevent failures
  - » Continue replacement of defective oil coolers on the 2006 Clean Diesel fleet
  - » Continue to work with the manufacturer of the newest CNG model to identify the root cause and a solution to thermostat failures
  - » Restart the proactive battery pack replacement on 2006 and 2008 Hybrid models



*Bus Maintenance celebrated a major milestone—the completion of the 2,000th Metrobus mid-life overall. This program, which began in 1994, maintains the fleet in a state of good repair and is a major part of reducing service interruptions for customers.*

## Bus Crowding

- ▶ Load factor measures customer crowding on buses.
- ▶ Automatic passenger counter data (for all routes and time periods) are used to calculate the max loads in the table below.
- ▶ Crowding appears to be problematic on many high ridership routes across all times of day and particularly in DC and MD.

### Q4/2016 TOP 10 MOST CROWDED ROUTES BY JURISDICTION

Service Code	Line Name	Route Name	Time Period	Highest Passenger Load	Load Factor
DC	16th Street	S2*	AM Peak	114	2.0
	Georgia Avenue–7th Street	70*	PM Peak	111	2.0
	16th Street	S4*	AM Peak	110	2.0
	16th Street	S2*	PM Peak	109	2.0
	Benning Road–H Street	X2*	AM Peak	106	1.9
	16th Street–Potomac Park	S1*	AM Peak	106	1.9
	Georgia Avenue–7th Street	70*	Midday	105	2.0
	Benning Road–H Street	X2*	PM Peak	104	1.8
	Georgia Avenue–7th Street	70*	PM Peak	105	1.9
	Benning Road–H Street	X2*	Midday	100	2.0
MD	Greenbelt–Twinbrook	C4	PM Peak	85	1.9
	Greenbelt–Twinbrook	C4	Midday	79	2.0
	New Carrollton–Silver Spring	F4	PM Peak	78	2.0
	Georgia Avenue–Maryland	Y7	PM Peak	78	1.9
	New Hampshire Avenue–Maryland	K6	PM Peak	77	1.8

Performance Thresholds	Load Factor
Below Threshold	< .3
Standards Compliant	.3 – .5
Occasional Crowding	.6 – .7
Recurring Crowding	.8 – .9
Regular Crowding	1.0 – 1.3
Continuous Crowding	> 1.3

### Q4/2016 TOP 10 MOST CROWDED ROUTES BY JURISDICTION

Service Code	Line Name	Route Name	Time Period	Highest Passenger Load	Load Factor
MD	Greenbelt–Twinbrook	C2	Midday	76	2.0
	Eastover–Addison Road	P12	PM Peak	76	1.9
	Connecticut Ave–Maryland	L8	AM Peak	76	1.9
	Eastover–Addison Road	P12	Midday	75	1.9
	New Carrollton–Silver Spring	F4	AM Peak	75	1.9
VA	Leesburg Pike	28A	AM Peak	76	1.9
	Leesburg Pike	28A	PM Peak	75	1.9
	Ballston–Farragut Square	38B	PM Peak	73	1.8
	Columbia Pike–Farragut Square	16Y	AM Peak	71	1.7
	Columbia Pike–Federal Triangle	16X	PM Peak	70	1.7
	Columbia Pike–Farragut Square	16Y	PM Peak	70	1.7
	Lee Highway–Farragut Square	3Y	AM Peak	69	1.7
	Mt Vernon Express	11Y	AM Peak	67	1.6
	DC–Dulles	5A	PM Peak	66	1.6
	Mt Vernon Express	11Y	PM Peak	66	1.6

\* Route has articulated buses, allowing for highest passenger load above 100

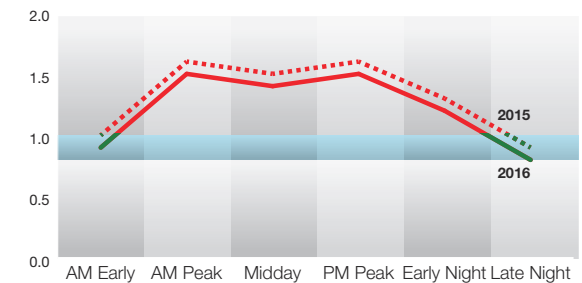
**Highest Passenger Load** = the average of all the highest max loads recorded by route, trip and time period

**Load Factor** = highest passenger load divided by actual bus seats used

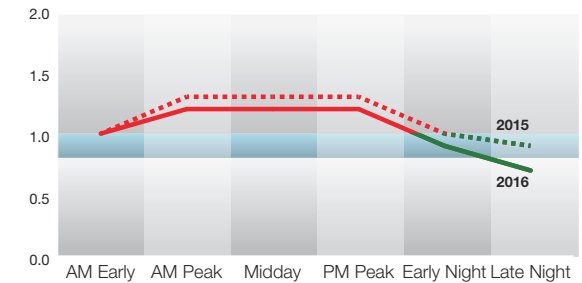
## QUALITY SERVICE



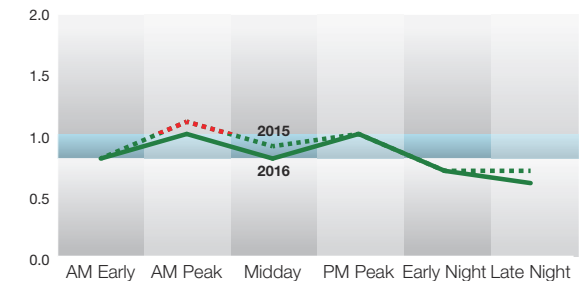
### Q4 YEAR-OVER-YEAR PERFORMANCE—DC



### Q4 YEAR-OVER-YEAR PERFORMANCE—MD



### Q4 YEAR-OVER-YEAR PERFORMANCE—VA



For all graphs: 1.0 = all bus seats occupied



## QUALITY SERVICE

### KPI: Rail Customer On-Time Performance (Pilot)

#### Why did performance change?

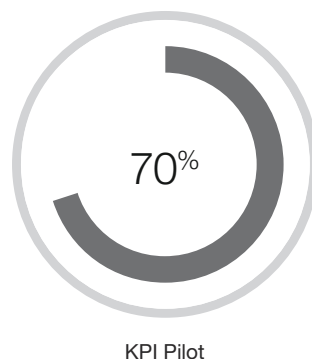
- ▶ Rail customer on-time performance (OTP) was highest in March and April, at 78 and 80%, as mild weather translated into fewer railcar malfunctions and track-related delays. Midday, evening, and weekend track work was also suspended during parts of these months to meet the demands of Cherry Blossom tourists.
- ▶ In June, the aggressive, 24/7 SafeTrack emergency repair program began. SafeTrack touched about 16% of the system from June to December 2016, affecting customers on all lines and lowering monthly OTP by up to six percentage points as service was severely scaled back or parts of the system were shutdown for extended periods.
- ▶ While railcars accounted for the bulk of unplanned service disruptions (65% in 2016, either because railcars failed in service or were not available for service), total railcar-related delays and offloads were down by over 13% compared to 2015 thanks to the more reliable 7000-Series trains. After railcars, the most common sources of customer delays are: transit police responses, sick customers, or unattended bags (14%); and rail infrastructure defects (7%).
- ▶ To improve safety, Metro enhanced its track inspection procedures, leading to speed restrictions (5% of all 2016 delays) that slowed train travel times and caused more customers to be late.

#### Key actions to improve performance

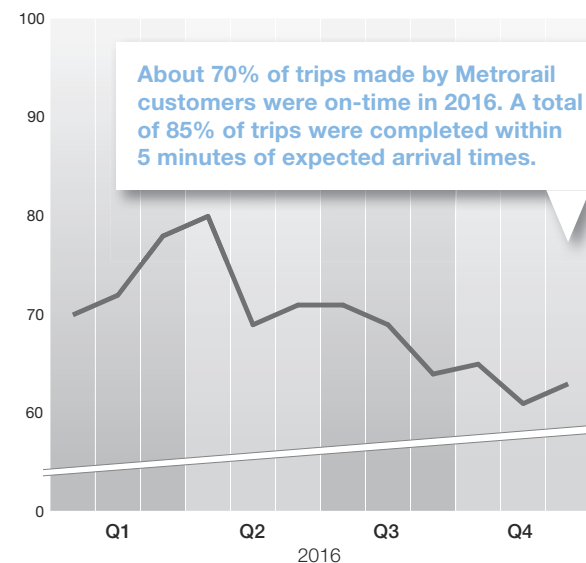
- ▶ Execute a "Get Well" plan for railcars to further reduce offloads and cut delays by 25%
- ▶ Complete SafeTrack and implement new, aggressive preventive maintenance efforts designed to cut infrastructure-related delays in half by the end of 2018
- ▶ Repair escalators, elevators and fare gates to enable smooth flow of passengers through station

ANNUAL PERFORMANCE

#### Rail Customer On-Time Performance



1-YEAR TREND IN PERFORMANCE



SafeTrack greatly accelerated WMATA's efforts to bring its most deteriorated tracks into a state of good repair. In just six months in 2016, crews replaced over 28,000 crossties, more than 2014 and 2015 combined.

## KPI: Rail Fleet Reliability

## QUALITY SERVICE

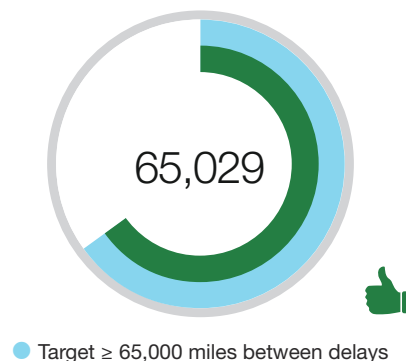


### Why did performance change?

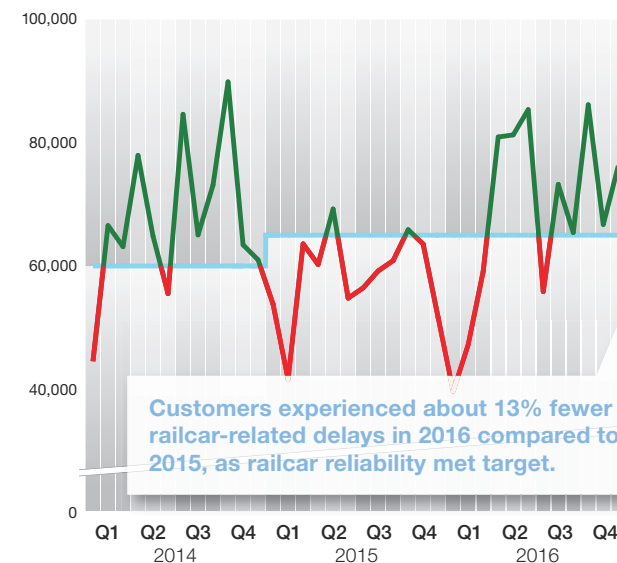
- ▶ On average, railcars traveled just over 65,000 miles between delay in 2016. For customers, this means that each railcar traveled about 11.5 months before experiencing a failure that delayed a train for four or more minutes. This equates to almost 2,500 trips from one end of the line to the other.
- ▶ Performance improvements in 2016 are the result of:
  - » Efforts to address immediate parts shortages and “fill the bins.”
  - » Introduction of more 7000-Series railcars, which are among the best performers of the fleet together with the 6000-Series. At the end of 2016, there were over thirty 7000-Series eight-car trains in service, representing about 20% of the fleet.
  - » Revamped mechanic training focusing on improving repair quality. Repeat failures decreased 23% in 2016.

### ANNUAL PERFORMANCE

#### Rail Fleet Reliability



### 3-YEAR TREND IN PERFORMANCE



### Key actions to improve performance

- ▶ Improve the reliability and availability of the rail fleet by completely replacing all 1000- and 4000-Series railcars with new 7000-Series
  - » Retired 152 1000-Series cars in 2016; the remaining 126 will be retired by mid-2017
  - » Remove all 100 4000-Series cars from service by the end of 2017
  - » Add over 20 new 7000-Series eight-car trains by the end of 2017
- ▶ Reduce missed dispatches by developing tools and strategies to balance railcars and series across yards
- ▶ Begin operating trains composed of all the same series
- ▶ Implement targeted repair campaign of defective components on the legacy fleet



*In November, WMATA mechanics started a “maintenance blitz” to address the most frequent reliability issues with the 2000/3000-, 5000- and 6000-Series (HVAC, doors, pneumatics and propulsion).*

## QUALITY SERVICE



## Rail Crowding

**Metro only had half as many instances of overcrowding at max load points during rush periods for this reporting period (Aug–Oct 2016) compared to the same period in 2015, largely driven by decreases in ridership.**

- Crowding levels on railcars is monitored in accordance with Board standards

## Why Did Performance Change?

- Rush period ridership declined 6% from the same period last year, leading to less-crowded railcars. There were 7 fewer instances of overcrowding compared to the same period in 2015.
- Most of the instances of overcrowding for this reporting period occurred during evenings, as PM Rush ridership is concentrated over a three-hour period while AM Rush ridership is spread over a four-hour period. Also, fewer trains are typically available during the evening due to unplanned railcar breakdowns and other disruptions that occur during the day.
- SafeTrack resulted in reduced service on Red, Blue and Orange Lines during this period. The need for riders to make alternative travel choices was successfully communicated, thus mitigating the risk of overcrowding.

## Key Actions to Improve Performance

- By the end of 2017, about 1/3 of Metro's railcar fleet will consist of 7000-Series railcars, all of which are run as 8-car trains
- Improve railcar reliability by executing the railcar "Get Well" initiative in the Back2Good plan, including a "maintenance blitz" to address the most frequent reliability issues with the 2000/3000, 5000 and 6000-Series railcars
- Monitor effectiveness of test decals on platforms at Metro Center, Gallery Place, L'Enfant Plaza, and Union Station that show where a 6-car train will be positioned. The decals are intended to help customers re-position on a platform to avoid congestion and reduce the safety risk of running for the last door of the train

Optimal passengers per car (PPC) of 100, with minimum 80 and maximum of 120 PPC

AM Rush Max Load Points		Aug 15	Sep 15	Oct 15	Aug 16	Sep 16	Oct 16
Gallery Place	Red	89	91	102	82	88	88
Dupont Circle		92	90	93	81	91	87
Pentagon	Blue	94	113	85	93	94	86
Rosslyn		80	113	87	85	100	85
L'Enfant Plaza		54	57	62	57	63	68
Court House	Orange	92	106	113	85	96	81
L'Enfant Plaza		62	64	74	64	69	68
Pentagon	Yellow	68	74	86	65	82	84
Waterfront	Green	82	86	90	86	90	93
Shaw-Howard		71	73	81	67	76	76
Rosslyn	Silver	88	104	98	70	105	90
L'Enfant Plaza		59	57	73	58	71	56
PM Rush Max Load Points							
Metro Center	Red	98	103	102	95	92	91
Farragut North		91	85	94	92	82	103
Rosslyn	Blue	112	127	103	103	110	91
Foggy Bottom–GWU		100	117	95	109	101	91
Smithsonian		57	57	61	44	42	39
Foggy Bottom–GWU	Orange	93	112	117	98	83	78
Smithsonian		69	52	84	57	73	60
L'Enfant Plaza	Yellow	73	70	75	74	72	74
L'Enfant Plaza	Green	76	81	81	73	103	85
Mt. Vernon Sq.		75	60	83	63	63	69
Foggy Bottom-GWU	Silver	84	85	107	90	85	72
Smithsonian		64	50	80	59	73	69

## KPI: Elevator and Escalator Availability

### QUALITY SERVICE



### Why did performance change?

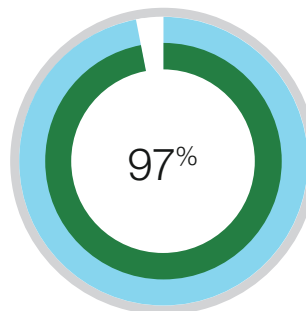
- ▶ **Elevator Availability** just met the target of 97%, which is virtually unchanged from 96.9% in 2015. A 7% annual increase in hours spent on unscheduled work was partially offset by a 5% decrease in time spent on scheduled capital work. The uptick in unscheduled maintenance was driven by a more rigorous inspection process which identified complex repair items that took twice as long to fix than the previous year; 17 hours/unit were spent on such repairs in 2015 compared to 37 hours/unit in 2016.
- ▶ **Escalator Availability** reached 93.5% for the year, exceeding the 93% target, and virtually unchanged from 93.4% in 2015. The mix of work changed, as a 17% increase in unscheduled maintenance was offset by a 19% decrease in scheduled maintenance. Despite a significant annual reduction in hours spent conducting preventive maintenance inspections, repair work stemming from these inspections took much longer to complete; 17 hours/unit were spent addressing repair items from inspection in 2015, compared to 41 hours/unit in 2016.

### Key actions to improve performance

- ▶ Metro's Back2Good plan includes the replacement of 137 of the system's 618 escalators by 2020, and the rehabilitation of up to an additional 144 escalators. In 2017, 53 of the worst-performing escalators will be rehabilitated. Also expected is the rehabilitation of 100 of the system's 318 elevators (in stations and maintenance/administration facilities) by 2021.
- ▶ Remote monitoring allows for quicker identification of outages and dispatch of technicians to return the equipment to service faster. Currently, 230 of the 278 (83%) public-facing elevators and 585 of the 618 (95%) escalators can be monitored remotely.
- ▶ Continue updating preventive maintenance procedures tailored to each escalator/elevator model to improve maintenance quality.
- ▶ Escalators need periodic replacement of escalator steps for safety and reliability. To ensure a steady supply of escalator steps, staff is working closely with Procurement to establish a contract for escalator steps.

#### ANNUAL PERFORMANCE

##### Elevator Availability

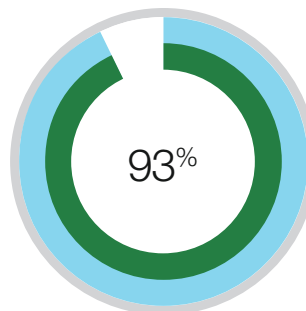


● Target ≥ 97%



#### ANNUAL PERFORMANCE

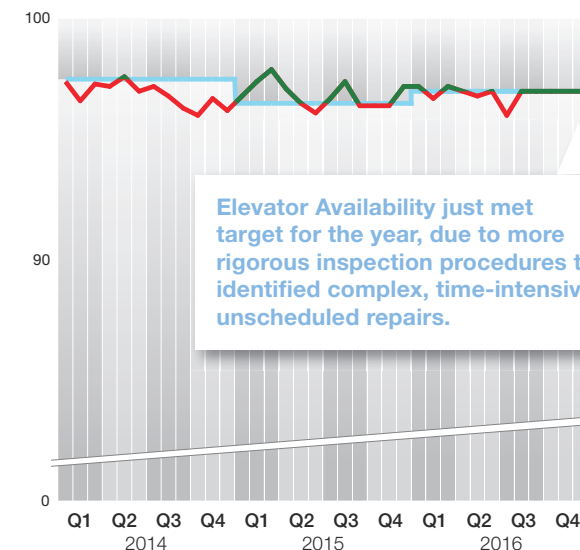
##### Escalator Availability



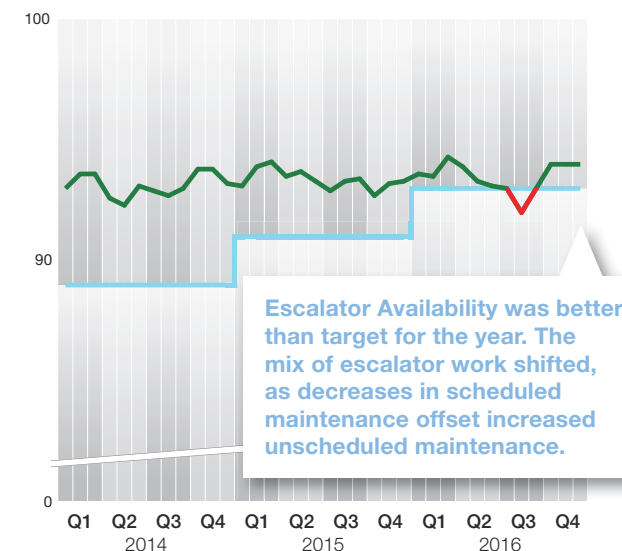
● Target ≥ 93%



#### 3-YEAR TREND IN PERFORMANCE—ELEVATOR



#### 3-YEAR TREND IN PERFORMANCE—ESCALATOR



## KPI: Customer Satisfaction

## QUALITY SERVICE



### Why did performance change?

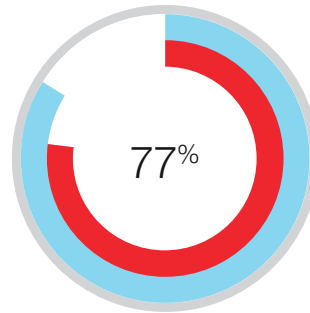
- ▶ For bus customers, 2016 satisfaction levels were unchanged from 2015.
- ▶ Rail customers' satisfaction significantly decreased compared to 2015; with train reliability frustrations doubling in 2016 compared to 2015.
- ▶ Bus and rail satisfaction showed no statistical change throughout 2016. This suggests perceptions have plateaued. Barring any seismic event, 2016 results may indicate a new normal for customer satisfaction.

### Key Actions to improve performance

- ▶ In the coming year, the railcar "get well" program and new 7000-Series rail cars should help to improve rail satisfaction
- ▶ As improvements in bus on-time performance contribute most significantly to improving bus customer satisfaction, bus will focus on improving performance on low performing routes

#### ANNUAL PERFORMANCE

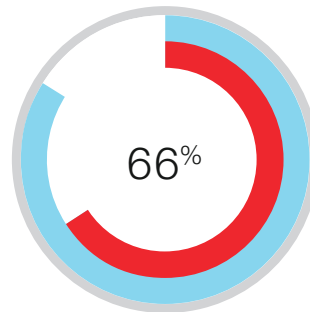
##### Customer Satisfaction – Bus



● Target ≥ 85% of surveyed customers

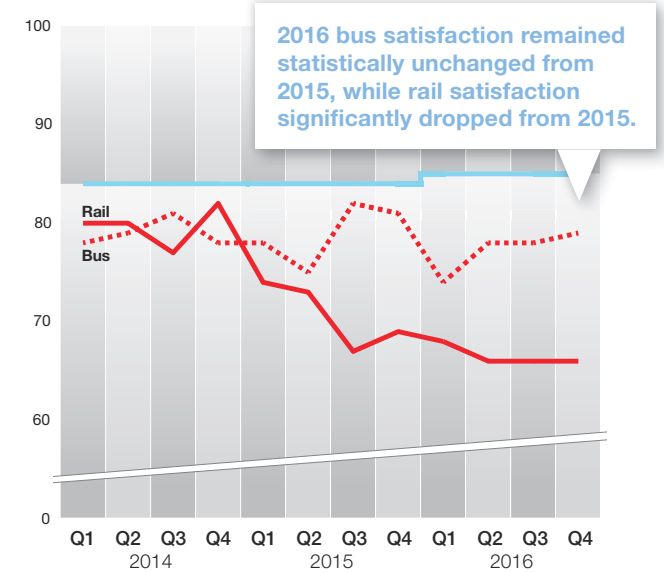
#### ANNUAL PERFORMANCE

##### Customer Satisfaction – Rail



● Target ≥ 85% of surveyed customers

#### 3-YEAR TREND IN PERFORMANCE



Customers have adeptly adjusted ridership patterns due to maintenance activities.

## KPI: Customer Injury Rate

## SAFETY AND SECURITY

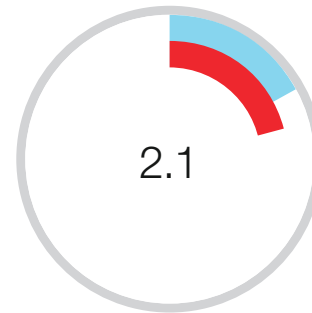


### Why did performance change?

- ▶ Bus injuries were 49% of total customer injuries for the year and the bus customer injury rate increased by 11% compared to 2015. Collision-related injuries continue to be the leading cause of bus customer injuries (64%) followed by slips, trips, or falls. Non-preventable bus collisions account for ¾ of all collisions.
- ▶ The rail system accounted for 41% of customer injuries and the rail injury rate was 17% lower than in 2015. Slips, trips, or falls, primarily on escalators or in rail stations, accounted for a large majority of injuries (86%). The on-board injury rate is substantially lower than the other categories, accounting for only 19 injuries.
- ▶ MetroAccess accounted for 10% of customer injuries for the year and the injury rate for MetroAccess customers rose by 57%, due partly to more inclusive standards for reportable injuries adopted this year. The leading causes of MetroAccess customer injuries were collisions and slips, trips, or falls.

### ANNUAL PERFORMANCE

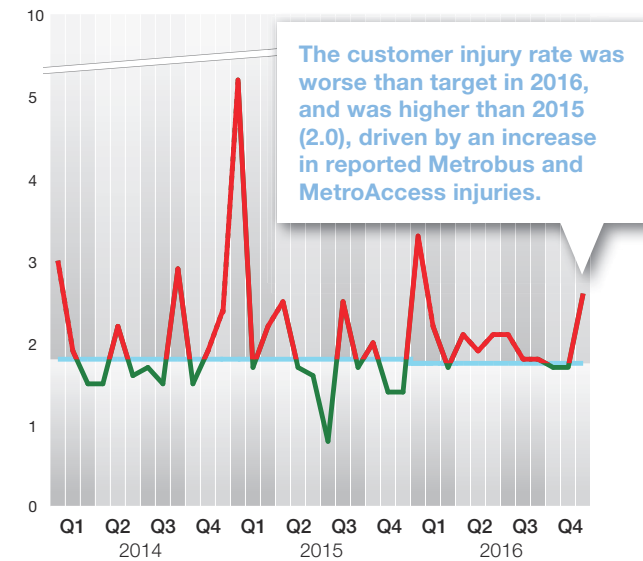
#### Customer Injuries



● Target ≤ 1.75 per million passengers



### 3-YEAR TREND IN PERFORMANCE



### Key actions to improve performance

- ▶ Enhance safety features
  - » Install public safety radio systems and cabling for cell phone service in tunnels
  - » Improve station lighting
- ▶ Coach staff
  - » Augment MetroAccess operator training with better methods to assist customers who have difficulty maintaining balance, facilitated through a working group including an occupational therapist
  - » Emphasize defensive driving tactics during bus operator training and develop weekly safety tips around frequent accident types
  - » Schedule safety blitzes at incident hotspots to reinforce safe behavior and address unsafe conditions
- ▶ Submit for closure all FTA and NTSB safety recommendations



*Improved operator training with an occupational therapist will lead to reduced MetroAccess customer injuries from slips, trips, or falls.*



## SAFETY AND SECURITY

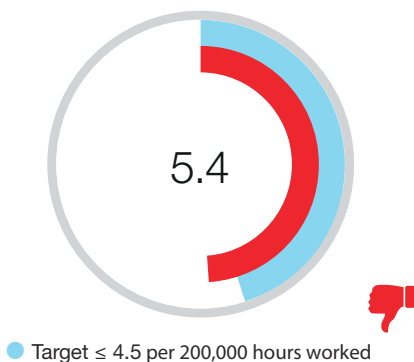
### KPI: Employee Injury Rate

#### Why did performance change?

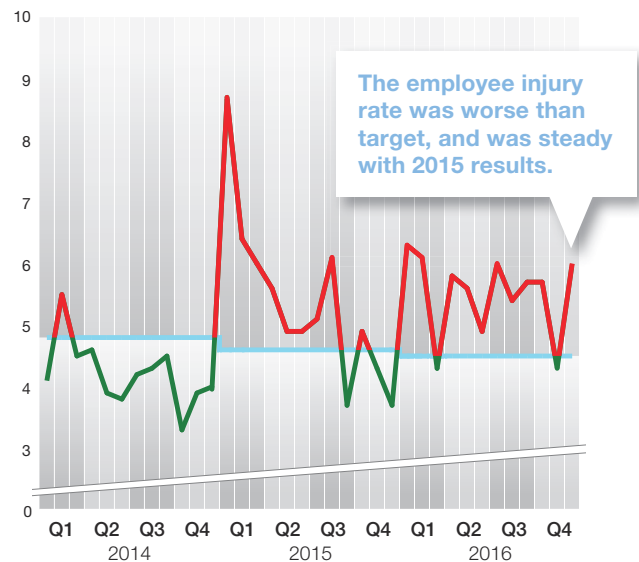
- ▶ Motor vehicle collisions are the leading employee injury type (25%), with collisions involving buses accounting for 20% of the total. Slips, trips, or falls was the next highest category, accounting for 22% of employee injuries.
- ▶ Bus Transportation had the most employee injuries in 2016 (48%) and its employee injury rate increased 8% compared to 2015. More than one-third of injuries were the result of collisions and 19% were crime-related (largely assaults of bus operators).
- ▶ Rail Transportation accounted for 15% of employee injuries and its employee injury rate decreased 19% compared to last year. Slips, trips, or falls were the leading category (17%) and stress-related injuries accounted for the second-highest total (16%).

ANNUAL PERFORMANCE

#### Employee Injuries



3-YEAR TREND IN PERFORMANCE



#### Key actions to improve performance

- ▶ Train employees to identify hazards that may lead to injuries and improve compliance with use of personal protective equipment
- ▶ Improve personal safety and security for bus operators.
  - » Emphasize defensive driving tactics during bus operator training and develop weekly safety tips around frequent accident types
  - » Continue Metro's SafeWatch program, a partnership between Bus Services and Metro Transit Police to ensure the safety of bus operators late at night
  - » Continue installation of shields to protect operators as part of bus fleet renewal
  - » Conduct assault prevention workshops and Town Hall meetings
- ▶ Ensure coordination of safety issues among departments as required in the System Safety Program Plan



Metro won a federal grant to enhance roadway worker protection.

## KPI: Crime Rate

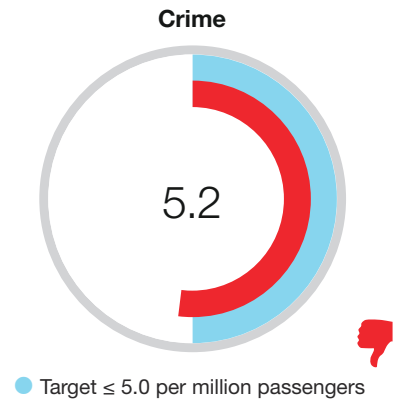
### Why Did Performance Change?

- ▶ The number of Part I crimes declined in 2016 on both the rail (16%) and bus (10%) systems but increased in parking lots (40%). Despite fewer crime incidents, the rate is slightly higher due to a 9% drop in ridership. The reduction in bus crime sustained its positive momentum following an increase this year of both uniformed and casual clothes police deployments on buses to combat fare evasion. Bus operator assaults also decreased 14% from 2015, in part driven by the focus on fare evasion and the introduction of more bus shields.
- ▶ Crimes against property, accounting for the majority of total Part I crimes, declined 5.5% compared to 2015, driven by a 6% decrease in larcenies.
- ▶ Crimes against persons declined 2% overall. Robberies decreased 14% but aggravated assaults increased 30%. Five rapes were reported and all were closed, three resulted in arrests and two were determined to be unfounded. Five homicides occurred compared to two in 2015 and all led to arrests.

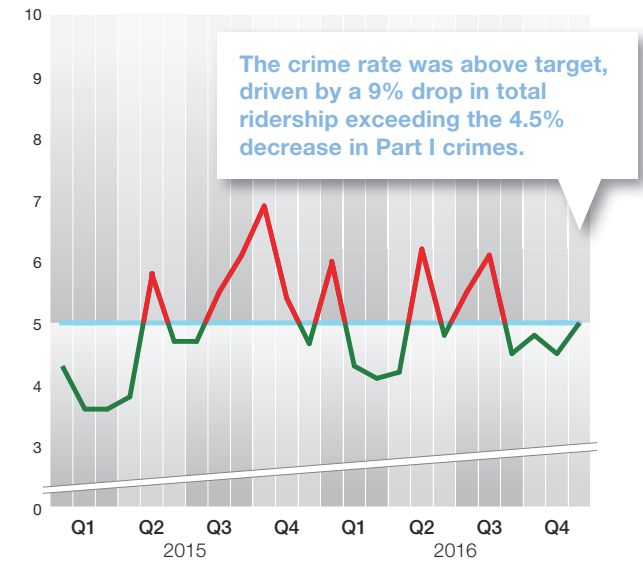
### Key actions to improve performance

- ▶ Surge deployments of uniformed officers during high crime periods for increased visibility to deter aggravated assaults and other crimes in rail stations
- ▶ Continually adjust tactics and resource allocation to address changing crime hotspots
- ▶ Sustain the fare evasion initiative on rail and bus and continue the collaboration with bus operators and bus managers to reduce bus crime and operator assaults
- ▶ Completed rollout of new high visibility uniforms
- ▶ Continue outreach activities such as meetings with downtown associations, community groups, and town halls

ANNUAL PERFORMANCE



2-YEAR TREND IN PERFORMANCE



Metro Transit Police unveiled new high visibility uniforms in 2016.

## SAFETY AND SECURITY



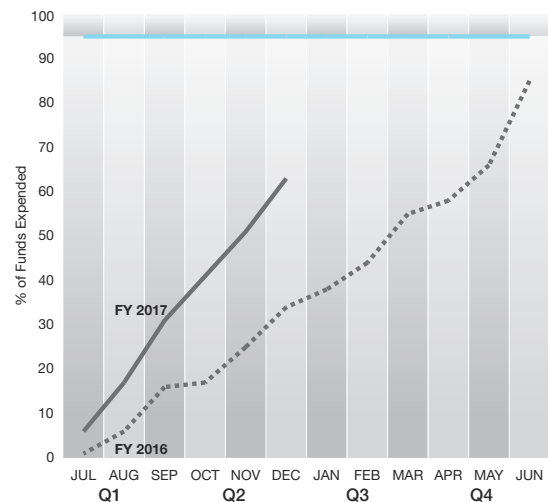


## PEOPLE AND ASSETS

### Capital Funds Invested

- ▶ Metro's original approved fiscal year 2017 capital budget was \$950 million.
- ▶ This measure tracks the rate at which the approved funding is invested in capital projects.
- ▶ The target for this measure is spending at least 95% of budgeted capital funds by the end of the fiscal year.
- ▶ In Q1 and Q2/FY2017, capital expenditures were at 63% of budget for the fiscal year, which is significantly better than the performance of the first half of FY2016 (34%).

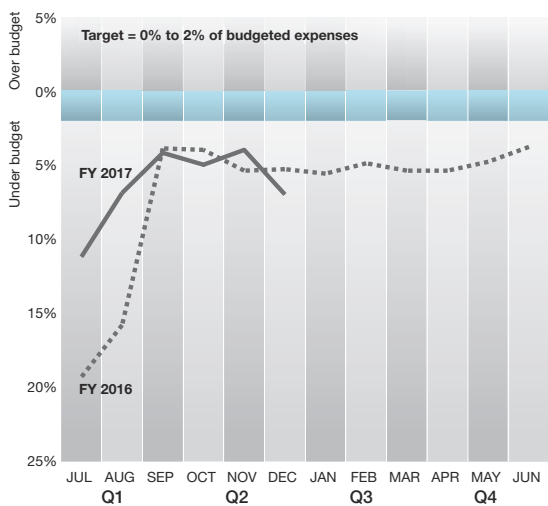
2-YEAR TREND IN PERFORMANCE (FISCAL YEAR)



### Operating Expense Variance

- ▶ Metro's approved fiscal year 2017 operating expense budget is \$1.745 billion.
- ▶ This measure calculates the cumulative year to date percentage variance between actual and budgeted expenses.
- ▶ The target for this measure is a range between 0% and 2% under budget.
- ▶ Through Q2/FY2017, operating expenditures were under budget by 7%.

2-YEAR TREND IN PERFORMANCE (FISCAL YEAR)



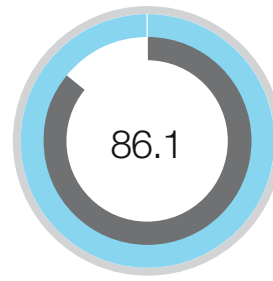
## Ridership

Ridership is a measure of total service consumed and an indicator of value to the region.

- ▶ Metro forecast total annual ridership of 341.5 million in its FY2017 budget. In Q1 & Q2/FY2017, total ridership was 149.4 million, 12.3% below forecasted ridership of 170.3 million.
  - » Metrorail ridership was 86.1 million, 14.9% below forecast.
  - » Metrobus ridership was 62.1 million, 8.6% below forecast.
  - » MetroAccess ridership was 1.2 million, 2.6% below forecast.
- ▶ Metrorail's average weekday ridership FYTD was 593,000, a year-over-year decrease of 10%. Off-peak hours, including weekends, saw greater ridership decreases, declining 16% compared to an 8% decline in peak period ridership.
- ▶ Safetrack surges directly resulted in a reduction of roughly 10,000–20,000 rail trips per weekday morning, driven by the track work-related service interruptions
- ▶ Average weekday bus ridership was 413,000, a 5% decrease from the first 6 months of FY2016. Bus trips where passengers connect to Metrorail are only about a quarter of total bus trips but accounted for 60% of the ridership decline (declining 11% compared to 3% for bus-only trips).
- ▶ MetroAccess averaged 8,000 trips per weekday, and is up 3.6% compared to the same period last year.

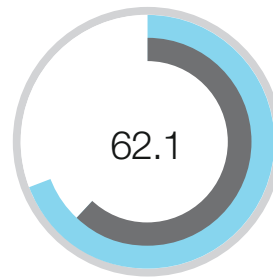
### FISCAL YEAR-TO-DATE PERFORMANCE

#### Ridership—Rail



● Budget Forecast = 101.1 million passengers

#### Ridership—Bus



● Budget Forecast = 67.9 million passengers

#### Ridership—MetroAccess



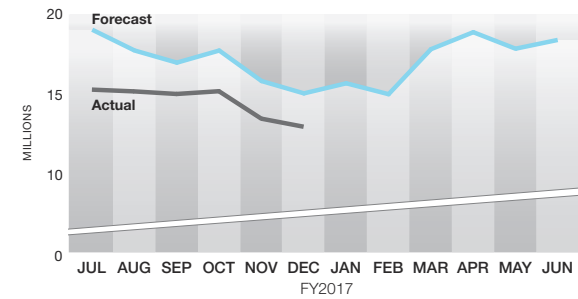
● Budget Forecast = 1.2 million passengers

## PEOPLE AND ASSETS

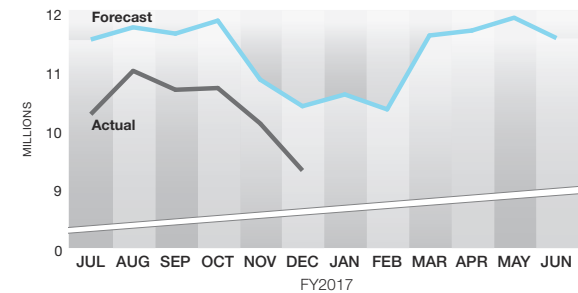


### 1-YEAR PERFORMANCE (FISCAL YEAR)

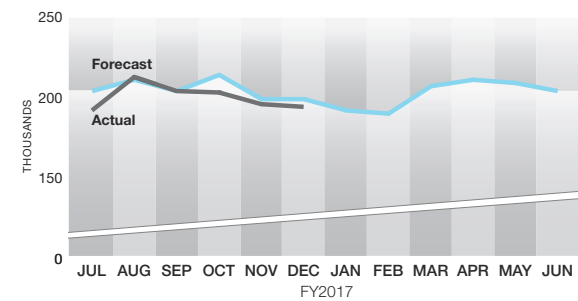
#### Ridership—Rail



#### Ridership—Bus



#### Ridership—MetroAccess



## Vacancy Rate

### Why Did Performance Change?

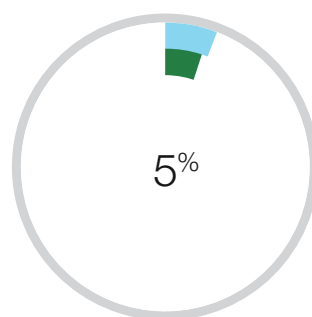
- ▶ In 2016 the overall vacancy rate gap closed 2% from 2015 due to an overall reduction in the number of budgeted positions across the organization. The number of budgeted positions in the support offices—e.g., finance, compliance, information technology—decreased the most at a 9% reduction while operations, engineering, and safety offices decreased by 3%.
- ▶ An increase in employee turnover, due to a reduction in force, partially offset the impact of the change in budgeted positions with turnover occurring at a faster pace than hiring in 2016. Overall, the workforce experienced a 7% turnover rate and an external hiring rate of 4% with talent acquisition activities impacted by a mid-year hiring freeze.
- ▶ The operations critical vacancy rate of 8% is favorable to target and improved 3% from 2015 with critical hires made in Rail Services, COO Support Services, Metro Transit Police Department, and the Office of the Chief Engineer. The Office of Safety was the only department to not improve over prior year due to the vacancy rate continuing to be impacted by the additional Safety Officer positions that were added in support of SafeTrack.

### Key actions to improve performance

- ▶ Prioritize hiring actions based on executive level direction to fill the most critically-needed positions first
- ▶ Review recruitment processes and developing internal measures to identify opportunities to fill vacancies quicker
- ▶ Regularly provide office directors and senior management reports on vacancies and status of recruitment efforts
- ▶ Engage external partners, such as federal and state employment agencies, technical schools, and universities, to assist with candidate sourcing
- ▶ Continue completing a compensation market analysis of pay ranges to remain a competitive employer

ANNUAL PERFORMANCE

#### Overall Vacancy Rate

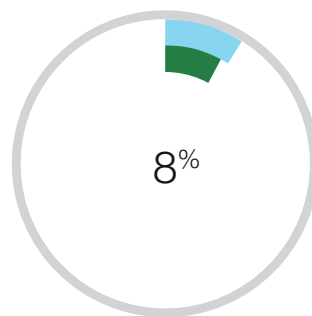


● Target ≤ 6%



ANNUAL PERFORMANCE

#### Operations Critical Vacancy Rate



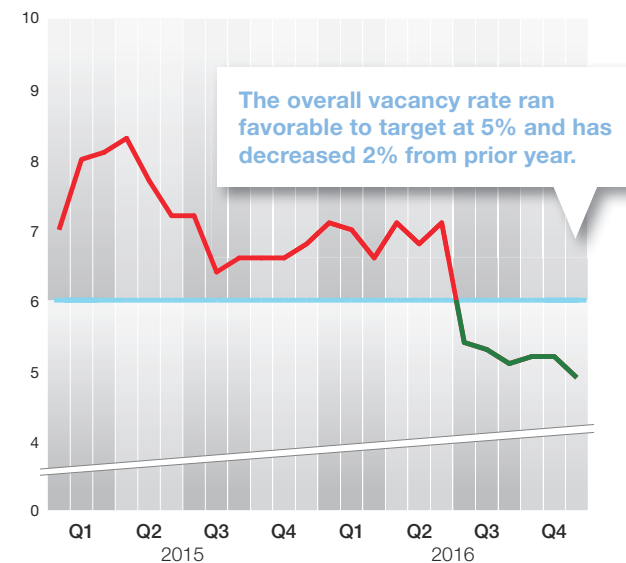
● Target ≤ 9%



## PEOPLE AND ASSETS



2-YEAR TREND IN PERFORMANCE



WMATA and Upwardly Global hosted an event in which a member of the Talent Acquisition staff gave a presentation outlining WMATA's efforts to recruit diverse talent into the organization.

## Disadvantaged Business Enterprise (DBE) Contracts

Disadvantaged Business Enterprises (DBEs) are for-profit small businesses wherein socially and economically disadvantaged individuals (including ethnic minorities, women, and other individuals evaluated on a case-by-case basis) own at least a 51% interest, control management and daily business operations, and possess a DBE certification from the relevant state—generally through the state Unified Certification Program (UCP).

The measure for DBE awards, the DBE Commitment Rate, calculates the percentage of contract dollars awarded to DBEs. Each Federal Fiscal Year (FFY), Metro sets a target for the percentage of contract dollars to be awarded to DBEs. Starting in FFY 2017, the target will be adjusted to 22%, based upon geographic market research.

DBE results are updated semi-annually in the Vital Signs Report to align with semi-annual federal fiscal year reporting.

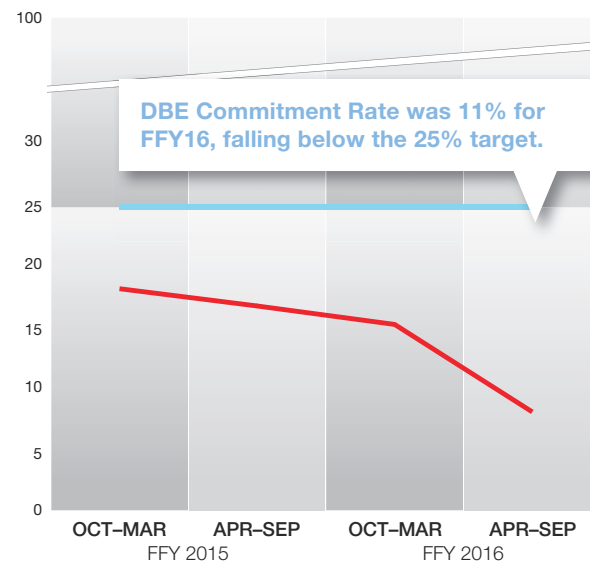
### Key actions to improve performance

- ▶ Hire new Chief of Fair Practices to oversee management and delivery of DBE and Equal Employment Opportunity (EEO) services and programs
- ▶ Metro's DBE office will continue to partner with Metro's Office of Procurement and Materials to:
  - » Hold kick-off meetings after WMATA contracts containing DBE goals have been awarded. The DBE Office will provide information on topics such as DBE reporting, substitution, and prompt payment requirements. These initiatives will be vital to educating both Prime contractors and DBE subcontractors on the FTA reporting requirements, while emphasizing the importance of following all procedures related to DBE compliance
  - » Increase focus on unbundling large contracts in order to potentially increase DBE participation. More DBE subcontracting opportunities can be created when larger contracts are unbundled to make them more attainable for DBE firms
- ▶ DBE office will increase level of monitoring of ongoing contracts to ensure DBE firm(s) that are included on the contracts are performing the work that they contractually required to do, during the appropriate phase of the contract

## PEOPLE AND ASSETS



2-YEAR TREND IN PERFORMANCE (FEDERAL FISCAL YEAR)



## Energy and Water Usage

### Why did performance change?

#### ENERGY

- ▶ Metro used 5% less traction power in CY2016 due to ongoing rail service reductions from SafeTrack and 4 days of closed or limited service following severe winter weather in January.
- ▶ Metrobus service remained consistent throughout CY2016 with diesel and CNG consumption remaining steady
- ▶ Metro used 14% less natural gas compared to 2015. In particular, March 2016 was unseasonably warm, with a 32% reduction in natural gas usage at facilities for heating when compared to 2015
- ▶ Metro used 5% less electricity for its facilities in 2016. This reduction was due to energy efficient lighting LED lighting upgrades at customer parking garages and ongoing efforts to improve the efficiency of mechanical systems through building automation systems.

#### WATER

- ▶ Summer 2016 had higher year-to-year average maximum temperatures that resulted in more water being used for chiller plants to cool stations during the year.

### Key actions to improve performance

#### ADVANCE ENERGY EFFICIENCY

- ▶ Complete facility and fleet energy audit to identify key projects to advance that will improve energy efficiency
- ▶ Continue implementation of Authority-wide energy monitoring system to guide energy management and reduce operating expenses
- ▶ Complete development of new MetroBus design specifications, which will include fuel efficiency targets
- ▶ Continue station lighting upgrades using energy-efficient fixture and lamps replacements

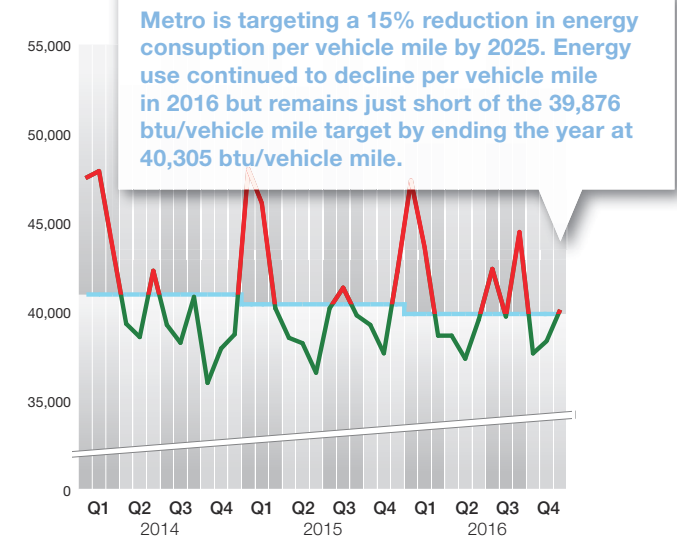
#### REDUCE WATER CONSUMPTION

- ▶ Expand remote monitoring of Metro station cooling towers to reduce water consumption, reduce operating expenses, and extend the life of Metro's chiller systems

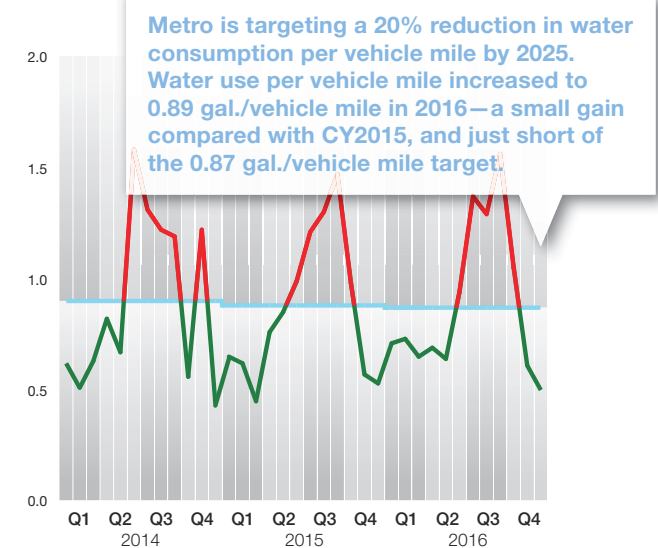
## PEOPLE AND ASSETS



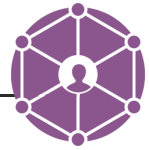
### 3-YEAR TREND IN PERFORMANCE—Energy Usage



### 3-YEAR TREND IN PERFORMANCE—Water Usage



## CONNECTING COMMUNITIES



### Bus Stop Accessibility

- ▶ 2016 target = 100 stops made accessible per year  
2016 actual results = 245 completed
- ▶ Jurisdictions continue to improve stops.
- ▶ Metro coordinates with local jurisdictions to prioritize upgrades by sharing information on inaccessible bus stops near MetroAccess customers and high-frequency pick-up and drop-off locations.

### Connected Communities

Connected communities will generate increased transit network ridership and therefore provision of transit access to employment, housing, entertainment, services, and amenities. Active modes such as walking and biking feed the majority (63%) of weekday Metrorail trips. One of the primary determinants of ridership is the quantity of households and jobs with safe and convenient walk access to a station. The greater the density of households and jobs within a half-mile radius of the station, the higher the non-motorized access to the station. In addition to their lower environmental footprint, active modes of access are significantly more cost-effective, in contrast to garages and feeder-bus operations. Connected community measures include:

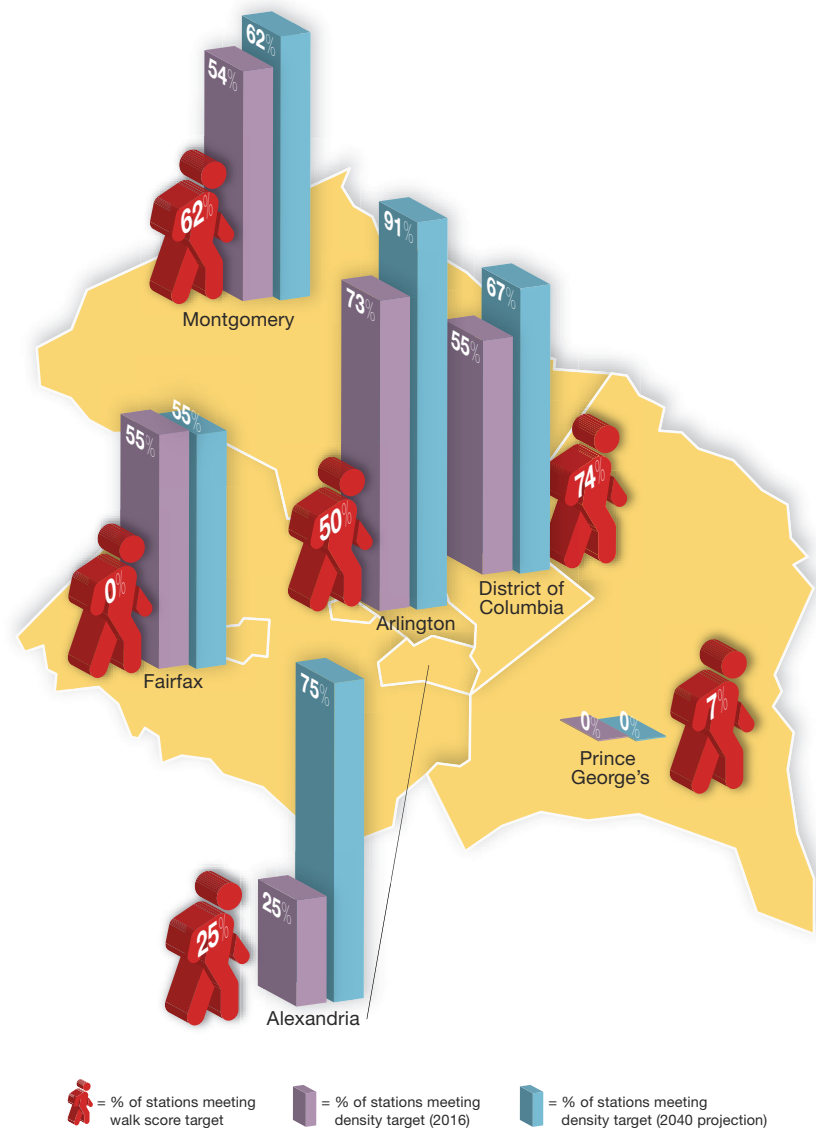
#### Growth Near Transit

- ▶ Locating jobs or housing within a viable walk of Metro stations (½ mile) means there is a greater opportunity for jobs, housing and retail to be better connected by transit on either end of a trip.
- ▶ The measure indicates how well local jurisdictions are supporting station-area growth by setting context-appropriate targets for density and growth. Using MWCOG's Cooperative Forecast data, which is informed by each jurisdiction's land use plans, we assess which stations meet these targets today and in 2040 under current projections.

#### Rail Station Walk Score

- ▶ Where reaching the station by foot or bicycle is inconvenient, unsafe or impossible due to poor sidewalk or street networks, ridership is suppressed. By removing bicycle and/or pedestrian barriers, Metro can realize more ridership originating on foot or by bicycle. To quantify the potential ridership gains, this measure calculates a walkshed coverage ratio for each station that represents the percent of the area within ½ mile of a station that is actually accessible by foot, indicating stations that can improve ridership by improvements to the surrounding pedestrian network.
- ▶ The calculation is based on the pedestrian network within the station area, rather than the typical 'planning circle' shown to represent the station planning area.

PERCENT OF STATIONS IN EACH JURISDICTION MEETING DENSITY AND WALKABILITY TARGETS



## Key Performance Indicator (KPI) Definitions

KPI	How is it measured?	What does this mean and why is it key to our strategy?
<b>QUALITY SERVICE</b>		
<b>Bus On-Time Performance</b>	<p>Adherence to Schedule</p> <p>Scheduled time: Actual time arriving at a time point based on a window of no more than 2 minutes early or 7 minutes late</p> <p>Number of time points that arrived on time by route based on a window of 2 minutes early and 7 minutes late ÷ Total number of time points scheduled (by route)</p>	<p>This indicator illustrates how closely Metrobus adheres to published route schedules on a system-wide basis. Factors that effect on-time performance are traffic congestion, inclement weather, scheduling, vehicle reliability, and operational behavior. Bus on-time performance is essential to delivering quality service to the customer.</p>
<b>Bus Fleet Reliability</b>	<p>Mean Distance Between Failures (MDBF)</p> <p>The number of total miles traveled before a mechanical breakdown requiring the bus to be removed from service or deviate from the schedule.</p>	<p>Mean Distance Between Failures is used to monitor trends in vehicle breakdowns that cause buses to go out of service and to plan corrective actions. Factors that influence bus fleet reliability include vehicle age, quality of maintenance program, original vehicle quality, and road conditions affected by inclement weather and road construction.</p>
<b>Bus Crowding</b>	<p>Ratio of bus seats filled</p> <p>Top load recorded on a route during a time period ÷ actual bus seat capacity</p>	<p>Bus crowding is a factor of bus customer satisfaction. This measure can inform decision making regarding bus service plans.</p>
<b>Rail Customer On-Time Performance</b>	<p>Percentage of customer journeys completed on time</p> <p>Number of journeys completed on time ÷ Total number of journeys</p>	<p>Rail Customer On-Time Performance (OTP) communicates the reliability of rail service, which is a key driver of customer satisfaction. OTP measures the percentage of customers who complete their journey within the maximum amount of time it should take per WMATA service standards. The maximum time is equal to the train run-time + a headway (scheduled train frequency) + several minutes to walk between the fare gates and platform. These standards vary by line, time of day, and day of the week. Actual journey time is calculated from the time a customer taps a SmarTrip® card to enter the system, to the time when the SmarTrip® card is tapped to exit.</p> <p>Factors that can effect OTP include: railcar availability, fare gate availability, elevator and escalator availability, infrastructure conditions, speed restrictions, single-tracking around scheduled track work, railcar delays (e.g., doors), or delays caused by sick passengers.</p>
<b>Rail Fleet Reliability</b>	<p>Mean Distance Between Delays (MDBD)</p> <p>Total railcar revenue miles ÷ Number of failures resulting in delays greater than three minutes</p>	<p>The number of revenue miles traveled before a railcar failure results in a delay of service of more than three minutes. Some car failures result in inconvenience or discomfort, but do not always result in a delay of service (such as hot cars).</p> <p>Mean Distance Between Delays communicates the effectiveness of Metro's railcar maintenance program. This measure reports the number of miles between railcar failures resulting in delays of service greater than three minutes. Factors that influence railcar reliability are the age of the railcars, the amount the railcars are used and the interaction between railcars and the track.</p>

continued

KPI	How is it measured?	What does this mean and why is it key to our strategy?
<b>Rail Crowding</b>	<p>Number of rail passengers per car</p> <p>Total passengers observed on-board trains passing through a station during a rush hour ÷ Actual number of cars passing through the same station during the rush hour</p> <p>Trained Metro observers are strategically placed around the system during its busiest times to monitor and report on crowding.</p> <p>Counts are taken at select stations where passenger loads are the highest and in the predominant flow direction of travel on one to two dates each month (from 6 AM to 10 AM and from 3 PM to 7 PM). In order to represent an average day, counts are normalized with rush ridership.</p>	<p>The Board of Directors has established Board standards of rail passengers per car to measure railcar crowding. Car crowding informs decision making regarding asset investments and scheduling.</p> <p>Additional Board standards have been set for:</p> <ul style="list-style-type: none"> <li>▶ Hours of service—the Metrorail system is open to service customers</li> <li>▶ Headway—scheduled time interval between trains during normal weekday service</li> </ul>
<b>Railcar Availability</b>	<p>Percentage of active railcars available for service</p> <p>Cars released for service at 7 AM ÷ Total active railcars</p>	<p>Railcar availability is a key driver of on-time performance (OTP) and supports the ability to meet the Board standard for crowding. When the availability target is met, scheduled departures of all 8- and 6-car trains from end of line stations are possible. When not enough railcars are available, train lengths are first shortened to six cars, which can contribute to crowding. When railcar availability dips further and there are not enough trains to depart from end-of-line stations, headways (time between trains) increase, lowering OTP for customers.</p>
<b>Elevator and Escalator Availability</b>	<p>In-service percentage</p> <p>Hours in service ÷ Operating hours</p> <p>Hours in service = Operating hours – Hours out of service</p> <p>Operating hours = Operating hours per unit × number of units</p>	<p>Escalator/elevator availability is a key component of customer satisfaction with Metrorail service. This measure communicates system-wide escalator and elevator performance (at all stations over the course of the day) and will vary from an individual customer's experience.</p> <p>Availability is the percentage of time that Metrorail escalators or elevators in stations and parking garages are in service during operating hours.</p> <p>Customers access Metrorail stations via escalators to the train platform, while elevators provide an accessible path of travel for persons with disabilities, seniors, customers with strollers, and travelers carrying luggage. An out-of-service escalator requires walking up or down a stopped escalator, which can add to travel time and may make stations inaccessible to some customers. When an elevator is out of service, Metro is required to provide alternative services which may include shuttle bus service to another station.</p>
<b>Customer Satisfaction</b>	<p>Survey respondent rating</p> <p>Number of survey respondents with high satisfaction ÷ Total number of survey respondents</p>	<p>Surveying customers about the quality of Metro's service delivery provides a mechanism to continually identify those areas of the operation where actions to improve the service can maximize rider satisfaction.</p> <p>Customer satisfaction is defined as the % of survey respondents who rated their last trip on Metrobus or Metrorail as "very satisfactory" or "satisfactory." The survey is conducted via phone with approximately 400 bus and 400 rail customers who have ridden Metro in the past 30 days. Results are summarized by quarter (e.g., January–March).</p>

continued

KPI	How is it measured?	What does this mean and why is it key to our strategy?
<b>SAFETY AND SECURITY</b>		
<b>Customer Injury Rate</b>	Customer injury rate: Number of injuries ÷ (Number of passengers ÷ 1,000,000)	The customer injury rate is based on National Transit Database (NTD) reporting criteria. It includes injury to any customer caused by some aspect of Metro's operation that requires immediate medical attention away from the scene of the injury.  Customer safety is the highest priority for Metro and a key measure of quality service. Customers expect a safe and reliable ride each day. The customer injury rate is an indicator of how well the service is meeting this safety objective.
<b>Employee Injury Rate</b>	Employee injury rate: Number of injuries ÷ (Total work hours ÷ 200,000)	An employee injury is recorded when the injury is (a) work related; and, (b) one or more of the following happens to the employee: 1) receives medical treatment above first aid, 2) loses consciousness, 3) takes off days away from work, 4) is restricted in their ability to do their job, 5) is transferred to another job, 6) death.  OSHA recordable injuries are a key indicator of how safe employees are in the workplace.
<b>Crime Rate</b>	Crime rate: Reported Part I crimes ÷ (Number of passengers ÷ 1,000,000)	Part I crimes reported to Metro Transit Police Department for Metrobus (on buses), Metrorail (on trains and in rail stations), or at Metro-owned parking lots in relation to Metro's monthly passenger trips.  This measure provides an indicator of the safety and security customers experience when traveling the Metro system. Increases or decreases in crime statistics can have a direct effect on whether customers feel safe in the system.
<b>PEOPLE AND ASSETS</b>		
<b>Capital Funds Invested</b>	Percentage of capital budget spent  Cumulative monthly capital expenditures ÷ fiscal year capital budget, including actual rollover from previous fiscal year	This indicator tracks spending progress of the Metro Capital Improvement Program.
<b>Operating Expense Variance</b>	Variance of actual to budgeted operating expenses  100% – (cumulative monthly operating expenditures ÷ fiscal year operating budget)	This indicator tracks Metro's progress managing its expenses.

*continued*

KPI	How is it measured?	What does this mean and why is it key to our strategy?
<b>Ridership</b>	Total Metro ridership  Metrorail passenger trips + Metrobus passenger boardings + MetroAccess passenger trips	Ridership is a measure of total service consumed and an indicator of value to the region. Drivers of this indicator include service quality and accessibility.  Passenger trips are defined as follows:  ▶ <b>Metrorail reports passenger trips.</b> A passenger trip is counted when a customer enters through a faregate. In an example where a customer transfers between two trains to complete their travel one trip is counted.  ▶ <b>Metrobus reports passenger boardings.</b> A passenger boarding is counted at the farebox when a customer boards a Metrobus. In an example where a customer transfers between two Metrobuses to complete their travel two trips are counted.  ▶ <b>MetroAccess reports passenger trips.</b> A fare paying passenger traveling from an origin to a destination is counted as one passenger trip.  *For performance measures and target setting, Metro uses total ridership numbers including passengers on bus shuttles to more fully reflect total passengers served. Metro does not include bus shuttle passenger trips in its budget or published ridership forecasts.
<b>Vacancy Rate</b>	Percentage of budgeted positions that are vacant  (Number of budgeted positions – number of employees in budgeted positions) ÷ number of budgeted positions	This measure indicates how well Metro is managing its human capital strategy to recruit new employees in a timely manner, in particular operations-critical positions. Factors influencing vacancy rate can include: recruitment activities, training schedules, availability of talent, promotions, retirements, among other factors.
<b>Disadvantage Business Enterprise (DBE) Contracts</b>	DBE Participation Rate:  Total contract dollars committed to DBEs ÷ Total contract dollars awarded to Primes	FTA DOT's DBE Program seeks to ensure nondiscrimination in the award and administration of DOT-assisted contracts.  DBE Participation Rate provides visibility into how well WMATA is doing to ensure that DBE certified businesses are awarded a specified percentage (target) of contracted work at WMATA.
<b>Water Usage</b>	Rate of gallons of water consumed per vehicle mile  Total gallons of water consumed ÷ Total vehicle miles	This measure reflects the level of water consumption Metro uses to run its operations. Water consumption is a key area of Metro's Sustainability Initiative, which brings focus to Metro's efforts to provide stewardship of the environmental systems that support the region.
<b>Energy Usage</b>	Rate of British Thermal Units (BTUs) consumed per vehicle mile  MBTU (Gasoline + Natural Gas + Compressed Natural Gas + Traction Electricity + Facility Electricity) × 1000 ÷ Total vehicles miles	This measure reflects the level of various types of energy Metro uses to power its operations. Energy consumption is a key area of Metro's Sustainability Initiative, which brings focus to Metro's efforts to provide stewardship of the environmental systems that support the region.
<b>Greenhouse Gas Emissions</b>	Rate of metric tons of CO <sub>2</sub> emitted per vehicle mile  (CO <sub>2</sub> metric tons generated from gas, CNG and diesel used by Metro revenue and non-revenue vehicles + CO <sub>2</sub> metric tons generated from electricity and natural gas used by facilities and rail services) ÷ Total vehicle miles	Greenhouse Gas emissions reflect how Metro sources its energy used to power its operations, as well as the amount of energy it uses. Reducing Greenhouse Gas emissions is a key area of Metro's Sustainability Initiative, which brings focus to Metro's efforts to provide stewardship of the environmental systems that support the region.

continued

KPI	How is it measured?	What does this mean and why is it key to our strategy?
<b>CONNECTING COMMUNITIES</b>		
<b>Bus stop accessibility</b>	The incremental number of bus stops upgraded to meet accessibility standards each year	The KPI measures the number of bus stops upgraded each year and is important to meeting our goals to make our bus system open and accessible and equitably serve all riders.
<b>Household and employment growth near transit</b>	<p>Planning office research has identified thresholds for both household and employment density—both urban and suburban contexts—that will sufficiently support new rail extensions. These thresholds have been applied to existing stations with the results shown for the % of stations in a jurisdiction that meet either the households or jobs threshold.</p> <p>Household density: Urban <math>\geq 15</math> hh/ac, Suburban <math>\geq 12</math> hh/ac</p> <p>Employment density: Urban <math>\geq 75</math> jobs/ac, Suburban <math>\geq 19</math> jobs/ac</p> <p>Stations are categorized using Metropolitan Washington Council of Governments (MWCOC) cordons for urban (core) vs. suburban (non-core). For this metric the following stations are excluded: Arlington Cemetery, Pentagon, and Ronald Reagan Washington National Airport.</p>	The measures tracks the number of stations meeting density targets under current conditions and under projections for future growth. The purpose is to improve regional mobility and connect communities by encouraging further growth near transit. One of the primary determinants of Metrorail ridership (and transit ridership in general) is the quantity of households and jobs with safe and convenient walk access to a station. This measure helps to highlight the importance of development around stations and its link to transit ridership.
<b>Rail station walk score</b>	<p>The walkshed coverage ratio is the share of the area within a 0.5 mile radius around the station that is actually accessible by walking a ½ mile from the station. Metro uses 63.7% to designate a high-performing walkshed. A walkshed can be expanded by providing new pedestrian infrastructure beyond the walkshed edges. This metric measures the progress toward the 63.7% coverage ratio on a jurisdictional level.</p> <p>For this metric the following stations are excluded: Arlington Cemetery, Pentagon, and Ronald Reagan Washington National Airport.</p>	This KPI measures the walkability of Metrorail stations. Active transportation modes such as walking and biking provide feed the majority (63%) of weekday trips on Metrorail. One of the primary determinants of Metrorail ridership (and transit ridership in general) is the quantity of households and jobs with safe and convenient walk access to a station. In addition to their lower environmental footprint, active modes of access are significantly more cost-effective for Metro to support, in contrast to costly garages and feeder-bus operations.

## Glossary of Terms

Action	Specific and discrete steps taken that move the organization toward achieving the Strategic Goals.
Key Performance Indicator (KPI)	A quantifiable measure externally reported that tracks progress toward achieving the Board adopted Strategic Goals.
Mission	Overarching purpose of the organization.
Performance Management Framework	An organizational process and culture that values measurement as a tool to deliver results.
Performance Measure	A quantifiable measure generally tracked internally as a management tool to gauge progress being made.
Strategic Goal	Adopted by the Board to provide direction that aligns the organization to attain the mission.
Target	End point or direction for performance measures and KPI's. Targets define success.
Vision	Desired outcome for the organization.

2016 ANNUAL

## Performance Data

## KPI: BUS ON-TIME PERFORMANCE [TARGET 79%]

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
CY 2014	80.4%	78.4%	78.2%	77.6%	76.9%	77.8%	78.7%	78.5%	76.0%	75.7%	77.9%	78.4%	77.9%
CY 2015	79.9%	78.9%	77.2%	76.8%	75.6%	77.3%	79.1%	80.4%	76.2%	75.6%	76.8%	78.4%	77.7%
CY 2016	77.0%	78.4%	77.7%	77.3%	76.5%	74.7%	77.1%	77.3%	72.5%	73.0%	72.5%	76.1%	75.8%

## KPI: BUS ON-TIME PERFORMANCE BY TIME PERIOD [TARGET 79%]

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
Early AM (4AM–6AM)	86.5%	87.5%	87.9%	88.2%	87.3%	87.5%	88.1%	88.4%	87.2%	86.7%	86.8%	86.8%	87.4%
AM Peak (6AM–9AM)	80.0%	80.7%	81.3%	81.0%	81.0%	80.5%	82.4%	81.6%	74.4%	76.9%	75.8%	79.7%	79.7%
Mid Day (9AM–3PM)	78.0%	79.8%	78.3%	78.4%	77.8%	75.2%	77.4%	77.6%	74.6%	74.9%	74.7%	77.6%	77.1%
PM Peak (3PM–7PM)	70.6%	71.8%	69.1%	71.0%	69.2%	66.8%	71.4%	71.9%	64.9%	64.2%	62.3%	67.3%	68.5%
Early Night (7PM–11PM)	78.9%	81.1%	77.6%	77.8%	77.4%	75.3%	76.9%	77.1%	74.0%	74.2%	75.9%	79.3%	77.1%
Late Night (11PM–4AM)	77.0%	80.6%	78.6%	76.8%	76.2%	74.1%	73.5%	74.2%	74.4%	75.5%	77.1%	79.5%	76.6%

## KPI: BUS FLEET RELIABILITY (BUS MEAN DISTANCE BETWEEN FAILURES) [TARGET 8,000 MILES]

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
CY 2014	5,879	7,291	7,778	7,648	6,773	7,313	7,095	7,911	6,954	8,027	8,440	7,670	7,337
CY 2015	6,259	7,434	6,109	7,016	6,405	7,328	6,499	7,327	7,542	7,307	9,121	7,893	7,101
CY 2016	8,422	8,332	8,359	9,138	8,711	7,736	7,540	7,425	8,428	8,378	8,262	8,421	8,225

\* Per page 20, bus fleet reliability is calculated by dividing total bus miles by number of failures. Miles for June 2015 are slightly overstated because they include bus mileage that had not been accurately reflected in prior months due to mechanical issues with hubdometers, the system used to collect mileage data. These issues were resolved during June 2015.

continued

continued

BUS FLEET RELIABILITY (BUS MEAN DISTANCE BETWEEN FAILURE BY FLEET TYPE)													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
CNG	6,758	6,551	6,768	9,250	7,677	7,140	6,719	7,614	8,015	7,989	7,970	6,875	7,401
Hybrid	10,475	9,221	10,364	10,294	10,065	9,322	8,414	7,364	8,793	9,230	9,378	10,063	9,308
Clean Diesel	7,506	7,498	7,404	8,250	8,351	5,799	8,160	8,265	8,157	6,251	5,941	6,903	7,266
All Other	4,944	5,057	4,759	3,278	4,282	3,689	3,670	4,693	6,856	5,744	3,693	4,222	4,363

KPI: RAIL CUSTOMER ON-TIME PERFORMANCE													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
CY 2016	70%	72%	78%	80%	69%	71%	71%	69%	64%	65%	61%	63%	70%

RAIL CUSTOMER ON-TIME PERFORMANCE BY LINE													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
Red Line	70%	74%	82%	78%	65%	74%	76%	63%	63%	53%	58%	69%	69%
Blue Line	61%	61%	63%	85%	75%	71%	70%	78%	63%	76%	68%	67%	70%
Orange Line	62%	62%	68%	72%	58%	50%	53%	58%	40%	49%	50%	33%	56%
Green Line	76%	78%	83%	82%	76%	77%	78%	72%	72%	70%	68%	71%	75%
Yellow Line	77%	80%	86%	83%	80%	79%	67%	75%	64%	69%	63%	62%	74%
Silver Line	74%	73%	77%	80%	63%	52%	56%	69%	57%	70%	59%	35%	64%

RAIL CUSTOMER ON-TIME PERFORMANCE BY TIME PERIOD													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
AM Rush	68%	74%	79%	79%	74%	71%	71%	71%	65%	62%	54%	61%	70%
Mid-day	78%	78%	80%	87%	70%	77%	81%	78%	75%	76%	76%	76%	78%
PM Rush	66%	70%	73%	75%	66%	64%	62%	60%	55%	57%	54%	53%	63%
Evening	78%	81%	81%	89%	80%	84%	80%	80%	73%	76%	81%	73%	80%
Late Night	84%	84%	86%	89%	83%	90%	86%	87%	83%	83%	86%	85%	86%
Weekend	67%	54%	77%	80%	56%	73%	71%	69%	64%	69%	64%	64%	68%

continued

KPI: RAIL ON-TIME PERFORMANCE (HEADWAY ADHERENCE) [TARGET 91%]													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
CY 2014	89%	92%	90%	92%	92%	91%	92%	90%	91%	90%	88%	90%	91%
CY 2015	87%	84%	88%	90%	87%	85%	84%	83%	79%	76%	80%	82%	84%
CY 2016	78%	82%	86%	87%	80%	80%	78%	76%	78%	80%	74%	76%	80%

RAIL ON-TIME PERFORMANCE BY LINE (HEADWAY ADHERENCE)													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
Red Line	72%	82%	89%	89%	76%	86%	86%	74%	82%	77%	66%	85%	81%
Blue Line	81%	71%	80%	88%	81%	79%	79%	81%	73%	81%	77%	74%	79%
Orange Line	78%	81%	83%	84%	75%	72%	70%	71%	71%	79%	69%	64%	75%
Green Line	80%	90%	88%	88%	86%	85%	81%	77%	80%	80%	80%	80%	83%
Yellow Line	86%	92%	95%	94%	93%	94%	81%	89%	89%	88%	87%	87%	90%
Silver Line	78%	76%	80%	83%	75%	56%	64%	73%	69%	78%	73%	57%	73%

RAIL ON-TIME PERFORMANCE BY TIME PERIOD (HEADWAY ADHERENCE)													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
AM Rush	73%	81%	84%	83%	80%	75%	70%	70%	73%	74%	64%	70%	75%
Mid-day	87%	85%	91%	95%	83%	88%	90%	88%	86%	89%	86%	86%	88%
PM Rush	72%	78%	82%	83%	76%	73%	68%	66%	70%	73%	64%	68%	73%
Evening	89%	89%	92%	95%	89%	97%	94%	92%	93%	93%	96%	93%	93%

KPI: RAIL FLEET RELIABILITY (RAIL MEAN DISTANCE BETWEEN DELAYS) [TARGET 65,000 MILES]													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
CY 2014	44,530	66,600	63,127	77,957	64,848	55,522	84,627	65,042	73,150	89,891	63,436	61,000	65,958
CY 2015	53,784	41,558	63,588	60,242	69,260	54,779	56,446	59,196	60,872	65,900	63,564	51,599	57,528
CY 2016	39,657	47,239	59,131	80,943	81,278	85,389	55,850	73,246	65,416	86,174	66,697	76,244	65,029

continued

KPI: RAIL FLEET RELIABILITY (RAIL MEAN DISTANCE BETWEEN DELAYS BY RAILCAR SERIES)													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
1000-Series	56,737	58,681	77,629	105,734	174,016	94,926	50,031	62,903	50,941	90,763	74,775	111,812	74,918
2000/3000-Series	51,392	57,103	66,428	78,186	72,896	119,880	55,279	136,774	61,239	100,407	70,955	70,657	72,073
4000-Series	21,463	23,535	18,865	31,649	23,898	29,244	30,110	24,528	55,677	27,582	33,322	38,676	27,259
5000-Series	24,104	34,868	51,345	79,911	62,025	37,149	45,753	65,966	44,059	69,846	41,989	64,299	47,056
6000-Series	58,510	56,063	89,422	117,154	173,971	632,365	124,506	73,272	132,893	168,723	121,301	74,327	103,121
7000-Series	16,986	50,712	167,196	98,498	100,820	118,706	54,560	69,168	107,486	98,549	92,300	115,492	82,611

RAIL FLEET AVAILABILITY [TARGET 85%]													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
CY 2014	84%	85%	84%	85%	84%	85%	86%	87%	88%	88%	87%	87%	85%
CY 2015	87%	84%	86%	87%	84%	79%	80%	80%	82%	83%	81%	81%	83%
CY 2016	77%	79%	82%	82%	81%	76%	73%	73%	79%	82%	76%	79%	78%

KPI: METROACCESS ON-TIME PERFORMANCE [TARGET 92%]													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
CY 2014	93%	90%	93%	91%	92%	92%	93%	93%	92%	92%	91%	92%	92%
CY 2015	93%	89%	89%	92%	93%	94%	95%	95%	94%	93%	93%	94%	93%
CY 2016	94%	93%	93%	93%	93%	92%	92%	91%	84%	83%	84%	87%	90%

KPI: ESCALATOR SYSTEM AVAILABILITY [TARGET 93%]													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
CY 2014	93%	94%	94%	93%	92%	93%	93%	93%	93%	94%	94%	93%	93%
CY 2015	93%	94%	94%	94%	94%	93%	93%	93%	93%	93%	93%	93%	93%
CY 2016	94%	93%	94%	94%	93%	93%	93%	92%	93%	94%	94%	94%	93%

KPI: ELEVATOR SYSTEM AVAILABILITY [TARGET 97%]													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
CY 2014	97%	97%	97%	97%	98%	97%	97%	97%	96%	96%	97%	96%	97%
CY 2015	97%	97%	98%	97%	96%	96%	97%	97%	96%	96%	96%	97%	97%
CY 2016	97%	97%	97%	97%	97%	97%	96%	97%	97%	97%	97%	97%	97%

KPI: CUSTOMER SATISFACTION RATING [TARGET 85%]													
	Q1/2014	Q2/2014	Q3/2014	Q4/2014	Q1/2015	Q2/2015	Q3/2015	Q4/2015	Q1/2016	Q2/2016	Q3/2016	Q4/2016	
Metrobus	78%	79%	81%	78%	78%	75%	82%	81%	74%	78%	78%	79%	
Metrorail	80%	80%	77%	82%	74%	73%	67%	69%	68%	66%	66%	66%	

CUSTOMER COMMENDATION RATE (PER MILLION PASSENGERS)													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
CY 2014	7.0	6.0	6.6	5.2	7.2	7.3	6.7	7.0	6.6	5.4	5.6	5.7	5.0
CY 2015	5.2	6.4	6.6	5.2	6.4	5.6	6.7	6.0	5.3	6.0	6.4	6.7	4.5
CY 2016	9.5	8.5	10.6	7.6	8.4	8.8	8.4	6.1	6.7	6.1	6.7	7.0	6.3

CUSTOMER COMPLAINT RATE (PER MILLION PASSENGERS)													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
CY 2014	92	88	74	81	78	83	90	85	96	89	71	69	64
CY 2015	82	82	65	69	89	88	86	88	112	80	81	85	65
CY 2016	114	98	105	93	103	122	164	137	126	127	121	106	90

KPI: CUSTOMER INJURY RATE (PER MILLION PASSENGERS) [TARGET ≤ 1.75]													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
CY 2014	3.0	1.9	1.5	1.5	2.2	1.6	1.7	1.5	2.9	1.5	1.9	2.4	2.0
CY 2015	5.2	1.7	2.2	2.5	1.7	1.6	0.8	2.5	1.7	2.0	1.4	1.4	2.0
CY 2016	3.3	2.2	1.8	2.1	1.9	2.1	1.8	1.8	2.0	1.7	1.7	2.6	2.1

\*Includes Metrobus, Metrorail, rail transit facilities (stations, escalators and parking facilities) and MetroAccess customer injuries

continued

**KPI: EMPLOYEE INJURY RATE (PER 200,000 HOURS) [TARGET ≤ 4.5]**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
CY 2014	4.1	5.5	4.5	4.6	3.9	3.8	4.2	4.3	4.5	3.3	3.9	4.0	4.2
CY 2015	8.7	6.4	6.0	5.6	4.9	4.9	5.1	6.1	3.7	4.9	4.3	3.7	5.4
CY 2016	6.2	5.4	4.4	5.7	5.1	4.9	6.2	5.3	6.1	5.7	4.3	6.0	5.4

**KPI: CRIMES [TARGET ≤ 5.0 PER MILLION PASSENGERS]**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
CY 2015	4.3	3.6	3.6	3.8	5.8	4.8	4.7	5.5	6.2	6.9	5.4	4.7	4.9
CY 2016	6.1	4.4	4.3	4.1	6.0	5.0	6.2	6.2	5.4	4.8	4.5	5.0	5.2

**CRIMES BY TYPE**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
Robbery	33	30	28	27	38	33	25	30	16	31	18	23	332
Larceny (Snatch/ Pickpocket)	30	28	30	28	19	20	27	27	24	18	22	32	305
Larceny (Other)	46	31	46	49	82	66	84	89	76	52	45	38	704
Motor Vehicle Theft	4	2	5	3	6	2	3	7	6	12	6	2	58
Attempted M V Theft	0	1	0	0	1	5	0	0	3	3	3	2	18
Aggravated Assault	15	16	12	6	14	10	19	10	12	10	13	14	151
Rape	0	0	0	1	1	1	1	0	1	0	0	0	5
Burglary	1	1	0	0	0	0	0	0	0	0	0	0	2
Arson	0	0	1	0	0	0	0	0	2	0	0	0	3
Homicide— MTPD	0	0	0	0	0	0	1	0	0	0	0	0	1
2016 Part1 Crimes	129	109	122	114	161	137	160	163	140	126	107	111	1,579
Homicides— Other Agencies	0	0	1	1	1	0	0	0	0	1	0	0	4

\* Homicides that occur on WMATA property are investigated by other law enforcement agencies. These cases are shown for public information; however, the cases are reported by the outside agency and are not included in MTPD crime statistics.

continued

OPERATING EXPENSE VARIANCE [TARGET 0-2 % BELOW BUDGET]													
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	YTD
FY 2015	1%	1%	-1%	-1%	0%	0%	0%	0%	1%	2%	2%	4%	0%
FY 2016	-19%	-16%	-4%	-4%	-5%	-5%	-6%	-5%	-5%	-5%	-5%	-4%	-5%
FY 2017	-11%	-7%	-4%	-5%	-4%	-7%							-7%

CAPITAL FUNDS INVESTED [TARGET 95% OF CAPITAL BUDGET]													
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
FY 2015	1%	3%	7%	11%	16%	24%	25%	29%	40%	45%	48%	65%	24%
FY 2016	1%	6%	16%	17%	25%	34%	38%	44%	55%	58%	66%	85%	34%
FY 2017	6%	17%	31%	41%	51%	63%							63%

RIDERSHIP BY MODE [BUDGET FORECAST 341.5 MILLION FY2017]														
	FY2017	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	YTD
Rail	Forecast	18,812,600	17,524,000	16,770,000	17,521,000	15,631,000	14,866,000	15,491,000	14,815,000	17,603,400	18,657,000	17,632,000	18,177,000	101,124,600
	Actual	15,098,254	14,988,724	14,829,231	15,013,972	13,283,576	12,860,998							86,074,755
Bus	Forecast	11,524,000	11,731,000	11,624,000	11,844,000	10,844,000	10,392,000	10,591,000	10,338,000	11,592,000	11,676,000	11,894,000	11,548,000	67,959,000
	Actual	10,255,630	10,992,048	10,701,979	10,704,129	10,090,453	9,357,267							62,101,506
Access	Forecast	202,000	209,000	202,000	212,000	197,000	197,000	190,000	188,000	205,000	209,000	207,000	202,000	1,219,000
	Actual	189,991	210,705	199,521	201,124	193,890	192,224							1,187,455
Total	Forecast	30,538,600	29,464,000	28,596,000	29,577,000	26,672,000	25,455,000	26,272,000	25,341,000	29,400,400	30,542,000	29,733,000	29,927,000	170,302,600
	Actual	25,543,875	26,191,477	25,730,731	25,919,225	23,567,919	22,410,489							149,363,716

continued

continued

VACANCY RATE [TARGET 6.0%]													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
2015	7%	8%	8%	8%	8%	7%	7%	6%	7%	7%	7%	7%	7%
2016	7%	7%	7%	7%	7%	7%	5%	5%	5%	5%	5%	5%	5%

OPERATIONS CRITICAL VACANCY RATE [TARGET 9.0%]													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
2015											9.4%	11.1%	11%
2016	11%	11%	12%	12%	10%	11%	10%	10%	10%	8%	8%	8%	8%

WATER USAGE (GALLONS PER VEHICLE MILE) [TARGET 0.87]													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
2015	0.65	0.62	0.45	0.76	0.86	1.07	1.21	1.30	1.47	0.97	0.57	0.52	0.87
2016	0.71	0.71	0.65	0.69	0.64	0.94	1.37	1.29	1.56	1.05	0.61	0.50	0.89

ENERGY USAGE (BTU/VEHICLE MILE) [TARGET 39,876]													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
2015	48,010	46,105	40,195	38,538	38,235	36,579	40,193	41,349	39,798	39,262	37,639	42,240	40,617
2016	47,371	42,602	37,952	38,660	37,365	39,565	42,404	39,734	44,477	37,665	38,352	40,112	40,395

GREENHOUSE GAS EMISSIONS PER VEHICLE MILE [TARGET 3.64]													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
2015	4.97	4.65	4.05	3.97	3.90	3.78	4.15	4.18	4.18	4.06	3.79	4.31	4.16
2016	4.47	4.14	3.56	3.75	3.57	3.79	4.11	3.80	4.34	3.63	3.66	3.81	3.87

DBE AWARDS/COMMITMENTS FOR FFY16, PERIOD 1 (OCT. 1, 2015 – MAR. 30 2016)									
AWARDS/COMMITMENTS MADE (total contracts and subcontracts committed during this reporting period)	Totals Dollars	Total Number	Total to DBEs (dollars)	Total to DBEs (number)	Total to DBEs/Race Conscious (dollars)	Total to DBEs/Race Conscious (number)	Total to DBEs/Race Neutral (dollars)	Total to DBEs/Race Neutral (number)	Percentage of Total Dollars to DBEs
Prime Contracts Awarded	\$64,975,570	19	\$303,955	1			\$303,955	1	0.5%
Subcontracts Awarded/committed this Period	\$9,710,000	15	\$9,710,000	15	\$9,710,000	15	\$0	0	100.0%
<b>Total</b>			<b>\$10,013,955</b>	<b>16</b>	<b>\$9,710,000</b>	<b>15</b>	<b>\$303,955</b>	<b>1</b>	<b>15.4%</b>

DBE AWARDS/COMMITMENTS FOR FFY16, PERIOD 2 (APR 1, 2016 – SEP 30, 2016)									
AWARDS/COMMITMENTS MADE (total contracts and subcontracts committed during this reporting period)	Totals Dollars	Total Number	Total to DBEs (dollars)	Total to DBEs (number)	Total to DBEs/Race Conscious (dollars)	Total to DBEs/Race Conscious (number)	Total to DBEs/Race Neutral (dollars)	Total to DBEs/Race Neutral (number)	Percentage of Total Dollars to DBEs
Prime Contracts Awarded this Period	\$121,763,742	74	\$8,098,853	38	\$0	0	\$8,098,853	38	6.7%
Subcontracts Awarded/committed this Period	\$2,188,393	5	\$2,188,393	5	\$2,188,393	5	\$0	0	100.0%
<b>Total</b>			<b>\$10,287,246</b>	<b>43</b>	<b>\$2,188,393</b>	<b>5</b>	<b>\$8,098,853</b>	<b>38</b>	<b>8.4%</b>

DBE AWARDS/COMMITMENTS FOR FFY16 (TOTAL)			
Reporting Period	FFY16 Period 1	FFY16 Period 2	Total
Total Dollars of Prime Contracts Awarded	\$64,975,570	\$121,763,742	\$186,739,312
Total Dollars to DBEs	\$10,013,955	\$10,287,246	\$20,301,201
Total to DBEs ÷ Total Dollars of Time Contracts Awarded = Fiscal Year DBE Commitment Goal			Percentage
			11%

## Appendix J - Glossary of Terms

AAC ( <i>Accessibility Advisory Committee</i> )	A Metro committee created to address the needs of senior citizens and customers with disabilities; efforts have resulted in numerous service upgrades including gap reducers, to make it easier for customers using wheelchairs to board Metrorail trains.
Accounting Basis	The accounting principles and methods appropriate for a government enterprise fund. Financial statements are prepared on the accrual basis of accounting under which revenues and expenses are recognized when earned or incurred.
Accrual Basis	Basis of Accounting where revenues are recognized when they are measurable and earned. Expenses are recorded when incurred.
ADA ( <i>Americans with Disabilities Act</i> )	Refers to Federal civil rights legislation passed in 1990 that requires public transportation services to be accessible to, and usable by, persons with disabilities. In compliance, Washington Metropolitan Area Transit Authority (Metro) operates Metrobus with a bus fleet equipped with passenger lifts and wheelchair tie downs, Metrorail with elevators and platforms that are ADA compliant and MetroAccess with a fleet of over 600 vans and sedans also equipped with lifts and tie downs.
Approved Budget	The revenue and expenditure plan approved by the WMATA Board of Directors for a specific one year period starting on July 1.
ART ( <i>Arlington Transit</i> )	Refers to the bus service that operates within Arlington County, Virginia, providing access to Metrorail and supplementing Metrobus with smaller, neighborhood-friendly vehicles.
Articulated Bus <i>Also see "Slinky" bus</i>	Refers to buses that have an "accordion" section in the middle that allows the bus to bend and flex (articulate). Articulated buses have more passenger capacity than standard 40-foot buses.
AGM ( <i>Assistant General Manager</i> )	An executive who reports directly to the General Manager/CEO or a Deputy General Manager of Metro.
Assets	Property owned by Metro which has monetary value with a future benefit.
Balanced Budget	Refers to a budget where estimated revenues are equal to or greater than estimated expenses.
Board of Directors	The Board of Directors is a 16-member body composed of eight voting and eight alternate members responsible for corporate governance of WMATA.
Bond	A written promise to pay a specified sum of money (face value) at a specified future date and the proposed means of financing them.
Bond Proceeds	Refers to additional local capital funds raised, when necessary, by issuance of revenue bonds in the municipal markets.

Budget	Refers to a financial operation embodying an estimate of revenues and expenditures for a fiscal period of 12 months or longer. This can be an operating or capital budget.
Budget Calendar	Refers to a schedule of key dates for specific milestones in the preparation and approval of a budget.
Budget Document	Refers to the official written statement and the supporting numbers prepared by the Financial staff for presentation for approval by the Board.
Budget Message	Refers to the general discussion of the budget document presented in writing as an overview, usually by the head of the organization.
Bus Shelter	A shelter for riders to wait for the bus, a canopy area with or without bench seating. In addition, the shelter includes a display case with bus information for Metrobus riders and is equipped with a trash receptacle.
Bus Stop	Refers to a stop indicated by a sign for riders to wait for the bus.
CAFR ( <i>Comprehensive Annual Financial Report</i> )	A report containing financial statements and statistical data that provides full disclosure of all material financial operations of Metro in conformity with generally accepted accounting principles.
Capital Assets	Assets of a material value and having a useful life of more than one year. Also called fixed assets.
Capital Budget	The portion of the budget that provides for the funding of improvements, projects and major equipment purchases.
Capital Improvement Program	The six-year plan of capital projects to be completed by Metro.
Cash Basis	Basis of Accounting whereby revenue and expense are recorded on the books of account when received and paid, respectively, without regard to the period to which they are incurred.
CNG ( <i>Compressed Natural Gas</i> )	A natural gas fuel used in a clean engine technology.
COLA ( <i>Cost of Living Adjustment</i> )	Cost of Living Adjustment (COLA) for inflation for employees.
Compact	Refers to interstate compact creating WMATA; this is a special type of contract or agreement between the three jurisdictions within which the organization operates.
Contingency Funds	Operating and capital funds reserved for unexpected expenditures during the fiscal year which were not addressed in the annual budget.

Cost Allocation	Refers to a process by which indirect or common costs are distributed to multiple cost objects (a job, task, business unit) based on a prescribed basis or methodology. For example, overhead costs such as IT support are allocated to the transportation modes on a percentage basis.
DC Circulator	Refers to a bus route funded by the DC Government with support from Metro to take persons to Washington, DC's premier cultural, shopping, dining, and business destinations.
Deadhead	Refers to non-revenue time when a bus or train is not carrying revenue passengers, usually a trip from, to, or between lines, yards or garages. Usually this refers to bus or rail travel to or from the garage or yard to a terminus or station where revenue service begins or ends.
Deficit	Refers to an excess of Liabilities over Assets or Expenses over Revenue.
Department	A major organizational unit that has overall responsibility for an operation or a group of operations within a functional area.
DGM (Deputy General Manager)	An executive who reports directly to the General Manager.
Diesel Fuel	Fuel composed of petroleum distillates that have a boiling point and specific gravity higher than gasoline.
Division	Refers to a garage and yard facility where buses are stored, maintained, and dispatched into service.
Fairfax Connector	The bus system that runs seven days a week with service throughout Fairfax County, Virginia and to Metrorail stations on the Orange, Blue and Yellow lines, including the Pentagon.
Fare box recovery ratio	Refers to the ratio of passenger fares (including inter-agency agreements related to fares) to total operating costs.
Farecard	Refers to a paper pass used to ride Metrorail or Metrobus. Paper farecards are no longer accepted, by bus or at rail faregates (as of March 2016).
Four-point Securement System	Refers to an onboard securement system for wheelchairs, three-wheel and four-wheel scooters. The system incorporates four seatbelt type straps that attach to the frame of a mobility device as a way to keep it from moving or rolling while on the bus.
FTA (Federal Transit Administration)	A federal administration within the U.S. Department of Transportation. The FTA provides stewardship of combined formula and discretionary programs to support a variety of locally planned, constructed, and operated public transportation systems throughout the United States.

GAAP ( <i>Generally Accepted Accounting Principles</i> )	Accounting standards, revised periodically, to which both private and public organizations within the United States are expected to conform.
GM/CEO ( <i>General Manager/Chief Executive Officer</i> )	The General Manager and Chief Executive Officer of Metro who reports directly to the Board.
Head Sign	Refers to the sign above the front windshield of a bus describing the line number or letter, its line name, and destination.
Headway ( <i>Frequency</i> )	Refers to time intervals between vehicles moving in the same direction on a particular route. Headway can change on a line during the day as rider demand changes.
JCC ( <i>Jurisdictional Coordinating Committee</i> )	The staff members from the jurisdictions supporting Metro. The JCC was established by the Board of Directors to facilitate the exchange of information between jurisdictions and WMATA.
Kiss and Ride	Refers to an area within a station where commuters are driven by private car and dropped off to board Metrobus or Metrorail.
Kneeling Bus <i>Also see Passenger lift</i>	Refers to a feature on buses that lowers the floor to the curb or to near-curb level to make it easier for passengers to board, especially for seniors and persons with disabilities.
KPI ( <i>Key Performance Indicator</i> )	KPI's are Key Performance Indicators that measure long term progress in the strategic areas of safety, security, service reliability and customer satisfaction.
Layover Time <i>Also known as Spot time</i>	Refers to time built into a schedule between arrival and departure for bus drivers to rest; minimum times are set by union contract. Layovers normally occur at each end of a route to allow for a driver's break and schedule recovery, but they may be scheduled at other points to allow for timed transfer connections.
Liability	A debt or legal obligation arising from transactions in the past which must be liquidated, renewed or refunded at a future date.
Linked/Unlinked trip	An unlinked trip is a passenger trip taken on a single vehicle, such as a single bus ride. Metrorail reports ridership as linked trips. A linked trip is counted every time a customer enters through a fare gate. For example, where a customer transfers between two trains to complete their travel one trip is counted.
Loop	Refers to a portion of a bus line where the driver operates a segment in one direction only. Passengers may only board on one side of the loop. Loops are sometimes required due to lack of pavement accessibility, or when no off street turn-around is available.

Loudoun County Transit	The weekday bus service from Loudoun County, Virginia to Washington D.C., the Pentagon and Rosslyn from stops in Purcellville, Hamilton, Leesburg and Sterling. A reverse commute bus service is provided from West Falls Church to Loudoun County.
MAP-21	Moving ahead for Progress in the 21 <sup>st</sup> Century Act, enacted in July 2012, governs federal surface transportation spending.
MARC (Maryland Area Regional Commuter)	A commuter rail system whose service areas include Harford County, Maryland; Baltimore City; Washington D.C.; Brunswick, Maryland; Frederick, Maryland and Martinsburg, West Virginia.
Metro	The Washington Metropolitan Area Transit Authority.
MetroAccess	The operating unit of Metro that offers service for eligible people with disabilities who are unable to use regular accessible Metrorail, Metrobus and local bus service (fixed route). Federal civil rights legislation passed in 1990 that requires public transportation services to be accessible to, and usable by, persons with disabilities.
Metrobus	The operating unit of Metro that provides regional and non-regional bus services.
Metrorail	The operating unit of Metro that provides heavy rail service (subway, aerial and surface) and 91 passenger stations.
Modified Accrual Basis	An accounting method that combines accrual-basis accounting with cash-basis accounting. Modified accrual accounting recognizes revenues when they become available and measurable and, with a few exceptions, recognizes expenditures when liabilities are incurred.
MTA (Maryland Transit Administration)	Refers to the bus, light rail, and subway services in Maryland. MTA also operates the MARC train service.
Multimodal	Refers to the availability of multiple transportation options, especially within a system or corridor. A multimodal approach to transportation planning focuses on the most efficient way of getting people or goods from place to place by means other than privately owned vehicles; by bus, trolley, light rail, streetcar, cable car, and/or ferry systems.
NextBus	Refers to the application that uses satellite technology for Metrobus locations to track the arrival times for bus operators and customers.
NTSB (National Transportation Safety Board)	NTSB is an independent federal agency charged with determining the probable cause of transportation accidents, promoting transportation safety, and assisting victims of transportation accidents and their families.
OCC (Operations Control Center)	The operations center that facilitates monitoring and communications for Metrorail operations.

Office	An organizational unit that falls under the structure of a department.
Paratransit	Refers to scheduled service for people who cannot use regular fixed-route bus service. MetroAccess uses vans and sedans to provide this service in the Washington Metropolitan area.
Park and Ride	Refers to the parking facility available for riders at Metrorail stations.
Passenger Lift <i>Also see Kneeling bus</i>	A mechanical device, either a lift or ramp, that allows wheelchair or scooter users, as well as other mobility-impaired passengers, to board a bus without climbing the steps.
Peak Service	Refers to weekday a.m. and p.m. service during commute hours that carries a maximum number of passengers. For Metrorail, peak hours are defined as the time between opening and 9:30 AM in the morning, and between 3 PM and 7 PM at night.
Personnel Expenses	Refers to expenditure in the operating budget for salaries and wages paid for services performed by Metro employees as well as fringe benefits costs associated with their employment.
PIDS <i>(Passenger Information Display System)</i>	Refers to signs located on each platform and mezzanine of every rail station to provide information to customers including next train's scheduled time of arrival, service delays, elevator outages, and free shuttle arrangements when elevators are out of service.
Platform Hours	The total scheduled time a bus spends from pull-out to pull-in at the division. Platform hours are used as a benchmark to calculate the efficiency of service by comparing "pay to platform" hours.
Programmed Reader	A machine that is attached to the fare gate/fare box where magnetic fare media can be read on Metrorail and Metrobus.
Proposed Budget	Refers to the budget prepared with preliminary estimates by the GM/CEO for the consideration of the WMATA Board.
RAC <i>(Riders' Advisory Council)</i>	A committee established by the WMATA Board. The council allows Metro customers an unprecedented level of input on bus, rail and paratransit service. The 21-member council includes six representatives from Maryland, Virginia, and the District of Columbia, two at-large members, and the chair of Metro's Accessibility Advisory Committee.
Revenue	An increase in fund assets from operational activity such as passenger fares, parking and advertising.
Revenue Bonds	A bond on which debt service is payable solely from a restricted revenue source.
Revenue Hours <i>Also known as Revenue Service</i>	Refers to all scheduled time bus/rail spends serving passengers, which can also be defined as platform hours minus deadhead and layover time.

Revenue Passengers	Refers to passengers who enter the system through the payment of a fare.
Revenue trip <i>Also see Linked/Unlinked trip</i>	Refers to any linked or unlinked trip that generates revenue by cash payment, use of a pass, and/or any other means of payment.
Ride-On	Refers to Montgomery County regional bus transit system in Maryland.
Round Trip <i>(Also known as a cycle)</i>	Refers to one inbound, plus one outbound trip (unless a loop route), equals one round trip or cycle.
Slinky bus <i>(Also see Articulated bus)</i>	Refers to a nickname used by passengers for an articulated bus.
SmartStudent Pass	A monthly pass for unlimited travel on Metrobus and Metrorail for students under 19 years of age who live and attend school in the District of Columbia.
SmartTrip®	Refers to a technology built and designed by Cubic Transportation Systems, Inc., a subsidiary of San Diego-based Cubic Corporation to add and deduct value from an electronically encoded card when a rider passes the card near a programmed reader on Metrobus and at fare gates on Metrorail.
Strategic Buses	Refers to spare buses available for service in the event that a bus in route is taken out of service.
Subsidy	Refers to funding received from jurisdictional funding partners in the Washington Metropolitan area consisting of Washington, D.C., suburban Maryland (Montgomery County and Prince George's County) and Northern Virginia counties of Arlington and Fairfax and the Cities of Alexandria, Fairfax and Falls Church.
TheBus	Prince George's County, Maryland local bus service.
TOC <i>(Tristate Oversight Committee)</i>	The Tri-State Oversight Committee is a partnership between state-level agencies in Maryland, Virginia and the District of Columbia to jointly oversee safety and security at the Washington, DC Metrorail system. FTA assumed Metrorail system oversight from the TOC in October 2015.
Transit Advertising	Refers to ads posted on the exterior and interior of buses and rail cars.
Tripper	A short piece of work (usually on a bus, but sometimes on a train) not long enough to qualify as complete run or full day's work. May involve vehicles from one line or route being re-routed to serve another.
Trunk Line	A route operating along a major corridor that carries a large number of passengers and operates at headway frequencies of 15 minutes or less.
TSI <i>(Transportation Safety Institute)</i>	A Federal Transit Administration-sponsored institute that conducts a full range of training programs in rail and bus safety and accident investigation.

VRE  
(*Virginia Railway Express*)

The commuter rail service that connects the Northern Virginia suburbs to Union Station in Washington, D. C., via two lines: the Fredericksburg Line from Spotsylvania, Virginia, and the Manassas Line from Broad Run/Airport station in Bristow, Virginia.

WMATA  
(*Washington Metropolitan Area  
Transit Authority*)

The acronym used for Washington Metropolitan Area Transit Authority serving the Washington Metropolitan area which consists of Washington, D.C., suburban Maryland (Montgomery County and Prince Georges County) and Northern Virginia counties of Arlington and Fairfax and the cities of Alexandria, Fairfax and Falls Church. Also known as Metro.

## Appendix K - Glossary of Acronyms and Abbreviations

### A

A&E	architecture and engineering
AA	alternatives analysis
AAI-CAF	(Spanish acronym) manufacturer of the 5000 Series rail cars
AC	alternating current
ACI	automatic car 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
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
BOCC	bus operations control center
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	Certified Apprenticeship Program
CCP	communications control panel
CCTV	closed-circuit television
CD	calendar days

CDR	conceptual design review
CFA	Capital Funding Agreement
CIP	Capital Improvement Program
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
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
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  
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
JV	joint venture

**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 21 <sup>st</sup> Century Act
MARC	Maryland Area Regional Commuter
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
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
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

**PQ**

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
ROW	right of way
RTU	remote terminal unit

**S**

S&I	service and inspection
SCI	substantial completion inspections
SCP	Safety Certification Program
SCWG	safety certification working group
SEP	System Expansion Program
SEIP	System Expansion and Improvement Program
SM	switch machine
SMADS	Station Monitor and Display System
SMS	Safety Measurement System
SOC	station operator's console
SOS	scope of service
SOW	scope of work
SSOA	state safety oversight agency
SSPP	System Safety Program Plan
SSPS	system safety program standards
SSWP	Site Specific Work Plan
STOV	station over-run

**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
Metro	Washington Metropolitan Area Transit Authority
WMS	Warehouse Management System

## Y

YE	year end
YOE	year of expenditure
YTD	year to date

## How to Contact Metro

### ***By mail or in person:***

Washington Metropolitan Area Transit Authority  
600 Fifth Street, NW  
Washington, DC 20001

To reach Metro headquarters at the Jackson Graham Building, take the Red, Green or Yellow lines to Gallery Pl-Chinatown station. Use the Arena exit. Walk two blocks east on F Street to 5th Street. Or, ride Metrobus routes D1, D3, D6, P6, X2, X9, 42, 70, 71, 74, or 80.

### ***By website:***

<http://www.wmata.com>

### ***By email:***

[csvc@wmata.com](mailto:csvc@wmata.com)  
Customer assistance

### ***By telephone:***

#### **Metro General Information**

202-962-1234

Administrative offices and general information  
Weekdays: 8:30 a.m. to 5:00 p.m.

#### **Customer Relations**

202-637-1328

Suggestions, commendations, comments

#### **Customer Information**

202-637-7000 (TTY 202-638-3780)

Metrobus and rail schedules, fares, parking,  
Bike 'N Ride program, and more

#### **MetroAccess**

301-562-5360 (TTY 301-588-7535) or  
toll free at 800-523-7009

MetroAccess Paratransit Service

#### **Transit Police**

202-962-2121