



Finance & Administration Committee

Action Item III-B

November 5, 2015

**Amendment to FY2016-2021 Capital
Improvement Program (CIP)**

Washington Metropolitan Area Transit Authority
Board Action/Information Summary

Action Information

MEAD Number:
201675

Resolution:
 Yes No

TITLE:

Amendment to FY2016-2021 CIP

PRESENTATION SUMMARY:

This presentation provides information to support a request to the Board to approve an amendment to the FY2016-2021 Capital Improvement Program (CIP).

PURPOSE:

This action requests Board approval of a proposed amendment to the FY2016-2021 Capital Improvement Program (CIP) to advance key safety projects and to accommodate project cost increases. The amendment reallocates current funding across existing projects, and there is no net change in required funding in any individual fiscal year or for the entire six-year CIP.

DESCRIPTION:

Key Highlights:

- Due to a delay in the delivery of new 7000 Series railcars, the project budget for the 1000 Series Railcar Replacement (CIP0057) project needs to be reallocated. The total budget for the project will remain unchanged, but \$74 million currently budgeted for FY2016 will be moved to FY2018 and FY2019.
- The total project budget for Rail Power Upgrades (CIP0076) can be reduced by \$75 million due to a recent engineering amendment which clarified that steel rail is suitable to support 100 percent eight-car operations.
- The project budgets for Traction Power State of Good Operations (CIP0253), GRS Track Circuit Replacement (CIP0139_06), Orange/Blue Line Rehabilitation Stage One (CIP0110) and Rail Yard Facility Repairs (CIP0116) require additional budget.
- The net impact of the above budget changes is zero, with no change to required funding in any individual fiscal year or for the entire six-year CIP period.

Background and History:

Metro is investing in a large and aggressive capital program in order to provide safer and more reliable service. Between FY2016 and FY2021, a total capital investment of \$6.2 billion is planned.

Discussion:

Under new project management and leadership, a comprehensive review of capital projects is underway with the goal of identifying barriers to completion. One result of this analysis is that four projects will require an increase to their total project budgets in order to complete outstanding deliverables.

To fund these additional requests, staff is proposing a two-step process. First, in FY2016 capacity will be created by updating the cash flow for the 1000 Series Rail Car Replacement project to match updated railcar delivery forecasts. The total budget for this project will not be reduced, but will be realigned by fiscal year. Second, staff is recommending a \$75.4 million reduction in the Rail Power System Upgrades project budget between FY2017-FY2021 to free up the funding necessary to complete the other projects included in this proposed budget amendment.

- **1000 Series Rail Car Replacement (CIP0057)** – The delivery of the 7000 Series vehicles slated to replace the 1000 Series railcars was scheduled to begin in the first quarter, but has been delayed. Due to the supplier's manufacturing issues, and inefficiencies in their commissioning process, the delivery and acceptance of the vehicles is approximately three months behind schedule. As a result, none of the Option 4 cars were delivered in the first quarter of FY2016. Staff is recommending realigning the project budget to reflect updated delivery schedules. The total FY2016-FY2021 budget for this project will remain the same.
- **Rail Power System Upgrades (CIP0076)** – In September 2015, WMATA engineering staff released an engineering amendment which stated that the complete replacement of composite third rail is not necessary to achieve the 100 percent 8 car-train operating state. Furthermore, the re-evaluation clarified that the existing steel rail is sufficient to support 100 percent 8 car operations. Between FY2016-FY2021 approximately \$75 million was budgeted in this project to replace the steel third rail with composite third rail. Staff is recommending reducing this budget by \$75 million from \$310 million to \$235 million.

The four projects requiring additional funding have different reasons for this increased need ranging from increases to scope to significant modifications to contracts:

- **Traction Power State of Good Operations (CIP0253)** – An additional \$10.9 million is requested due to an increase in the scope of this project. The additional budget will fund the temporary power arrangement to 6MW at Stadium Armory Traction Power Substation (TPSS), the new 3MW equipment purchase for the Stadium Armory TPSS, and the continuation of the installation of cable boots, sleeves and internal support. As a result of the September 21, 2015, fire at the Stadium Armory TPSS, major unplanned clean-up and rehabilitation work is necessary. As a result of January 2015 tunnel smoke incident, all existing jumper cables and associated connectors (boots/sleeves) were inspected to establish a list of cables and connectors in need of repair and/or replacement. This rehabilitation project is under way but in need of additional budget to purchase additional material and to provide for installation support to continue the portion of the project scheduled for FY2016. An additional \$5-7 million of funding will be required to fully fund the long-term restoration of power to at the Stadium Armory TPSS and restore normal Orange/Blue/and Silver line service to customers. Staff intends to present a recommendation as part of the FY2017 budget process when estimates are fully developed. The proposed amendment will increase the total

project budget from \$60 million to \$71 million, an 18 percent increase from the current approved budget.

- **GRS Track Circuit Replacement (CIP0139_06)** – As a result of the June 2009 Red Line accident, the National Transportation Safety Board (NTSB) made a series of recommendations to improve the safety of the system. One of the recommendations was to replace all Generation 2 General Railway Signal (GRS) Company track circuit modules from the system (R-10-8). This project was created in FY2011 to complete this recommendation. Costs within this program have increased significantly between FY2011 – FY2016 mainly due to a management decision to sponsor shutdowns to complete this work as quickly as possible. Between FY2011 – FY2015 this project sponsored 15 shutdowns, which is more expensive, yet considerably faster, than completing the work during shorter non-revenue hour windows. The proposed amendment will increase the total project budget from \$87 million to \$101 million, a 15 percent increase from the current approved budget.
- **Orange/Blue Line Rehabilitation Stage One (CIP0110)** – The Orange/Blue line rehabilitation project is composed primarily of one large contract and the support necessary to implement and supervise the contractor. The original contract value for all work was awarded for \$272 million and was planned to be paid from multiple CIP projects including CIP0110. Staff estimates that the final contract value will be approximately \$323 million. Increases to the contract have occurred due to access delay claims, differing site conditions, Davis-Bacon Wage Rate changes, and inefficiencies in completing the work.

Staff requests an increase to this project's budget to cover the additional contract and labor costs necessary to complete CIP0110 components of the contract. The proposed amendment will increase the total project budget from \$399 million to \$432 million, an 8 percent increase from the current approved budget.

The management and implementation of large contracts such as the Orange/Blue Line contract has proven difficult for WMATA. Lessons learned from contracts such as the Orange/Blue Line and Red Line stage one have prompted a contracting change. Going forward, WMATA will no longer issue these type of contracts, but will instead issue smaller and more narrowly focused contracts. This is the process being pursued by the Red Line Stage 2 and Radio Infrastructure Replacement - T-Band Relocation projects.

- **Rail Yard Facility Repairs (CIP0116)** – Additional budget is required for WMATA labor necessary to complete the improvements at the New Carrollton, Alexandria, and Brentwood rail yard facilities. The contract to the vendor has been issued, but there is not sufficient budget for the WMATA labor needed to implement and supervise the contractor. Additional budget is needed because more improvements were completed at these three and other rail yards than was originally planned. Between FY2011 and FY2015 staff replaced or rehabilitated: Boilers, cranes, rail car hoists, service and inspection pits, shop compressors, sump pumps and overhead doors among other improvements. The proposed amendment will increase the total project budget from \$150 million to \$168 million, a 12 percent increase from the current approved budget.

FUNDING IMPACT:

Net budget impact of proposed CIP amendment is zero. Metro staff will work with FTA on anticipated grant revisions and amendments as required.	
Project Manager:	Andrew Off
Project Department/Office:	TIES

TIMELINE:

Previous Actions	May 2015 - Board Approval of FY2016-2021 CIP June 2015 - Board Amendment to FY2016-2021 CIP
Anticipated actions after presentation	Metro staff will work with FTA on anticipated grant revisions and amendments as required.

RECOMMENDATION:

Recommend approval of the proposed FY2016-2021 CIP amendment which will increase the six-year project budgets for CIP0253, CIP0139_06, CIP0110 and CIP0116; reduce the six-year project budget for CIP0076; and reallocate funding between fiscal years for CIP0057, with the net impact of the various changes to be no change in overall funding for the six-year CIP.



Washington Metropolitan Area Transit Authority

Amendment to the FY2016-2021 Capital Improvement Program (CIP)

Finance & Administration Committee
November 5, 2015



Purpose

Request Board approval of proposed amendment to the FY2016 capital budget and the FY2016-2021 Capital Improvement Program (CIP) to advance safety projects and to accommodate project cost increases



1000 Series Rail Car Replacement



- Delivery of the 7000 series railcars is delayed due to manufacturer challenges and inefficiencies in the commissioning process
- Schedule adjustment to 1000 series replacement project – no change to total project budget

in millions	Total Project Budget
Current Budget	\$665.9
Proposed Budget	\$665.9
Variance	(\$0.0)
% Change	0%



Traction Power and Tie Breaker Improvements



- Engineering Amendment released in September 2015 found that accelerated replacement of steel rail with composite third rail is not necessary for 100% 8-car train operation
- Annual state of good repair program will continue to replace aged steel third rail with composite rail (CIP0023)

in millions	Total Project Budget
Current Budget	\$310.8
Proposed Budget	\$235.4
Variance	(\$75.4)
% Change	-24%



Traction Power State of Good Operations



- Additional funding to:
 - Continue Stadium-Armory Traction Power Substation rehabilitation
 - Continue NTSB recommended installation of cable boots, sleeves and internal supports

in millions	Total Project Budget
Current Budget	\$60.7
Proposed Budget	\$71.7
Variance	\$10.9
% Change	18%



GRS Track Circuit Replacement



- Additional funding to complete installation of the remaining 133 track circuits by early FY2017

in millions	Total Project Budget
Current Budget	\$87.6
Proposed Budget	\$101.0
Variance	\$13.4
% Change	15%



Orange/Blue Line Rehabilitation Stage One



- Additional Funding for:
 - Contractual construction obligations
 - Acceleration of project work into FY2016
 - WMATA personnel costs

in millions	Total Project Budget
Current Budget	\$399.6
Proposed Budget	\$432.0
Variance	\$32.4
% Change	8%



Rail Yard Facility Repairs



- Additional Funding for:
 - New Carrollton – Yard Operations Building, Car Maintenance Building and Site Systems
 - Alexandria – S&I Shop, TSSM Building and Site Systems
 - Brentwood – S&I Shop and Site Systems

	Total Project Budget
in millions	
Current Budget	\$149.9
Proposed Budget	\$168.5
Variance	\$18.6
% Change	12%



Capital Funding Impacts

- Proposed project budget adjustments will require revisions and/or amendments to FTA grants
- Staff will coordinate closely with FTA on all adjustments
- Long-term financing will be required to support project expenses to the extent that eligible FTA funds are unavailable



Recommendation

Approval to:

- Decrease FY2016-2021 budget for Traction Power and Tie Breaker Improvements Project (CIP0076)
- Decrease FY2016 budget but maintain total six-year project budget for 1000 Series Railcar Replacement (CIP0057)
- Increase budget for Traction Power State of Good Operations Project (CIP0253)
- Increase budget for Second Generation Track Circuit Replacement Project (CIP0139_06)
- Increase budget for Rail Yard Facility Repairs Project (CIP0116)
- Increase budget for Orange/Blue Line Rehabilitation Project (CIP0110)

SUBJECT: AMENDMENT TO FISCAL YEAR 2016-2021 CAPITAL IMPROVEMENT PROGRAM

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

WHEREAS, The Washington Metropolitan Area Transit Authority (WMATA) has identified certain capital projects that are ahead of schedule or have incurred higher than expected expenses, as well as other capital projects that are delayed, have incurred lower than expected expenses, or can be reduced in scope; and

WHEREAS, As a result, the Fiscal Year (FY) 2016-2021 Capital Improvement Program (CIP) must be amended to reallocate budget authority from the projects that are delayed or have cost less than anticipated to the projects that are ahead of schedule or have cost more; and

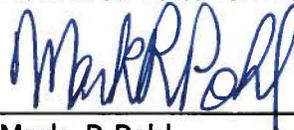
WHEREAS, The requested budget amendment is necessary to ensure that budget authority and expenses are aligned with the correct projects so WMATA can pay invoices and seek reimbursements from the Federal government under its grants; and

WHEREAS, The requested budget amendment does not utilize any of the General Manager/Chief Executive Officer's (GM/CEO) reprogramming authority for FY2016 as delegated in Resolution 2011-30, which delegated to the GM/CEO the authority to reprogram up to five percent of the approved total annual capital budget on an annual cumulative basis between existing projects; now, therefore be it

RESOLVED, That the FY2016 capital budget is amended and revised to reallocate budget authority between existing projects as shown in Attachment A, with no net change in total funding for any individual fiscal year or for the total six-year CIP; and be it finally

RESOLVED, That because the requested budget amendment will impact the upcoming FY2017-2022 CIP to be presented to the Board of Directors for consideration in December 2015, this Resolution shall be effective immediately.

Reviewed as to form and legal sufficiency,



Mark. R Pohl
Acting General Counsel

ATTACHMENT A

Proposed Amendment to FY2016-2021 Capital Improvement Program (CIP)

(in millions)

		Six-Year Plan						
		FY2016 Budget	FY2017 Plan	FY2018 Plan	FY2019 Plan	FY2020 Plan	FY2021 Plan	FY2016-21 Total
CIP0057	1000 Series Rail Car Replacement - Approved	\$ 198.3	\$ 265.00	\$ 73.00	\$ 10.20	\$ 6.6	\$ 4.0	\$ 557.1
	1000 Series Rail Car Replacement - Proposed	\$ 124.0	\$ 265.0	\$ 118.1	\$ 39.4	\$ 6.6	\$ 4.0	\$ 557.1
	Variance	\$ (74.3)	\$ -	\$ 45.1	\$ 29.2	\$ -	\$ -	\$ -
CIP0076	Rail Power System Upgrades - Approved	\$ 42.0	\$ 50.9	\$ 60.6	\$ 55.7	\$ 39.3	\$ 28.0	\$ 276.5
	Rail Power System Upgrades - Proposed	\$ 42.0	\$ 32.5	\$ 32.8	\$ 26.5	\$ 39.3	\$ 28.0	\$ 201.1
	Variance	\$ -	\$ (18.4)	\$ (27.8)	\$ (29.2)	\$ -	\$ -	\$ (75.4)
CIP0110	Orange/Blue Line Rehabilitation Stage One - Approved	\$ 58.9	\$ 48.0	\$ 34.0	\$ -	\$ -	\$ -	\$ 140.9
	Orange/Blue Line Rehabilitation Stage One - Proposed	\$ 81.0	\$ 73.1	\$ 19.3	\$ -	\$ -	\$ -	\$ 173.4
	Variance	\$ 22.1	\$ 25.1	\$ (14.7)	\$ -	\$ -	\$ -	\$ 32.5
CIP0116	Rail Yard Facility Repairs - Approved	\$ 15.0	\$ 39.2	\$ 14.2	\$ -	\$ -	\$ -	\$ 68.4
	Rail Yard Facility Repairs - Proposed	\$ 44.1	\$ 31.2	\$ 11.6	\$ -	\$ -	\$ -	\$ 86.9
	Variance	\$ 29.1	\$ (8.0)	\$ (2.6)	\$ -	\$ -	\$ -	\$ 18.5
CIP0139	NTSB Recommendations - Approved	\$ 18.6	\$ 5.2	\$ -	\$ -	\$ -	\$ -	\$ 23.8
	NTSB Recommendations - Proposed	\$ 30.7	\$ 6.5	\$ -	\$ -	\$ -	\$ -	\$ 37.2
	Variance	\$ 12.1	\$ 1.3	\$ -	\$ -	\$ -	\$ -	\$ 13.4
CIP0253	Traction Power State of Good Operations - Approved	\$ 5.2	\$ 9.0	\$ 9.5	\$ 10.3	\$ 12.5	\$ 14.3	\$ 60.8
	Traction Power State of Good Operations - Proposed	\$ 16.2	\$ 9.0	\$ 9.5	\$ 10.3	\$ 12.5	\$ 14.3	\$ 71.8
	Variance	\$ 11.0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 11.0
Total Proposed Change		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Note: NTSB = National Transportation Safety Board