



Metropolitan Transportation Authority

Finance Committee Meeting December 2016

Committee Members

L. Schwartz, Chair
F. Ferrer, Vice Chair
D. Jones
C. Moerdler
J. Molloy
M. Pally
J. Samuelson
P. Trottenberg
V. Vanterpool
J. Vitiello
P. Ward
C. Wortendyke
N. Zuckerman

Finance Committee Meeting

**2 Broadway, 20th Floor Board Room
New York, NY 10004**

**Monday, 12/12/2016
12:00 - 1:15 PM ET**

1. PUBLIC COMMENTS PERIOD

2. APPROVAL OF MINUTES – NOVEMBER 14, 2016

Finance Committee Minutes - Page 4

3. 2017 DRAFT COMMITTEE WORK PLAN

2017 Draft Work Plan - Page 10

4. BUDGETS/CAPITAL CYCLE

Finance Watch - Page 18

5. MTA HEADQUARTERS & ALL-AGENCY ITEMS

Action Items

MTA and TBTA Reimbursement for Federal Tax Purposes - Page 28

Authorization to Issue Transportation Revenue Bonds, Dedicated Tax Fund Bonds, TBTA General Revenue Bonds and TBTA Subordinated Revenue Bonds - Page 31

Approval of Supplemental Resolutions Authorizing Refunding Bonds - Page 79

Approval of Municipal, Special, and Advisors Contract Authorization - Page 139

Approval of Outside Counsel - Page 141

Adoption of 2017 Budget and 2017-2020 Financial Plan (Separate Document)

Report and Information Items

PeopleSoft 9.2 Upgrade Report (Presentation)

3rd Quarter Contract Change Order Report - Page 142

Procurements

MTAHQ Procurement Report - Page 145

MTAHQ Competitive Procurements - Page 147

6. METRO-NORTH RAILROAD & LONG ISLAND RAIL ROAD

MNR Procurements - Page 152

7. NEW YORK CITY TRANSIT, and MTA BUS OPERATIONS

NYCT Procurements - Page 154

8. BRIDGES AND TUNNELS

9. FIRST MUTUAL TRANSPORTATION ASSURANCE COMPANY (No Items)

10. MTA CONSOLIDATED REPORTS

Mid-Year Forecast and November Forecast vs Actual Results - Page 166

Statement of Operations - Page 169

Overtime - Page 177

Subsidy, Interagency Loans and Stabilization Fund Transactions - Page 182

Debt Service - Page 190

Positions - Page 192

Farebox Recovery Ratios - Page 195

MTA Ridership - Page 196

Fuel Hedge Program - Page 220

11. REAL ESTATE AGENDA

Action Items

Real Estate Action Items - Page 224

Report and Information Items

Real Estate Info Items - Page 234

Date of next meeting: TBD

Minutes of the MTA Finance Committee Meeting
November 14, 2016
2 Broadway, 20th Floor Board Room
New York, NY 10004
12:30 PM

The following Finance Committee members attended:

Hon. Lawrence Schwartz, Chair
Hon. Fernando Ferrer, Vice Chair
Hon. David R. Jones
Hon. Charles G. Moerdler
Hon. John J. Molloy
Hon. Mitchell H. Pally
Hon. Polly Trottenberg
Hon. Veronica Vanterpool
Hon. Peter Ward
Hon. Carl V. Wortendyke
Hon. Neal Zuckerman

The following Finance Committee members did not attend:

Hon. John Samuelsen
Hon. James E. Vitiello

The following Board Members were also present:

Hon. Andrew Albert
Hon. Ira Greenberg
Hon. Susan G. Metzger

The following MTA staff attended:

Robert Foran
Douglas Johnson
Patrick McCoy
Jeffrey Rosen
Angel Barbosa

Chairman Schwartz called the November 14, 2016 meeting of the Finance Committee to order at 12:43 PM.

I. Public Comments

There were two public speakers. Mr. Omar Vera discussed the results of the U.S. general election and raised his concerns regarding a potential impact on federal funding. Mr. Murray Bodin discussed issues related to Board accessibility and providing flexibility for members of the public to communicate with management or Board members.

II. Approval of Minutes

The Committee approved the minutes to its prior meeting held on October 26, 2016.

III. Committee Work Plan

There were no changes to the Committee Work Plan.

IV. Budgets/Capital Cycle

A. BudgetWatch

Mr. Douglas Johnson noted that there is no BudgetWatch for November because the November Financial Plan will be presented by Mr. Robert Foran in a joint meeting of the Board and Finance Committee on Wednesday, November 16, 2016.

B. FinanceWatch

Mr. Patrick McCoy presented FinanceWatch and noted that the items highlighted in FinanceWatch were reported to the Committee during the October meeting. He further noted there had not been changes or additions to that information (see pages 22 through 31 of the Committee book for the complete FinanceWatch report).

V. MTA Headquarters and All-Agency Items

A. Action Item

Mr. Johnson reported there was one action item requesting Board approval to add the law firm of Loeb & Loeb, LLP to the panel of Board approved counsel (see pages 32 and 33 of the Committee book).

The Committee voted to recommend the action item before the Board for approval.

B. Reports and Information Items

Mr. Johnson reported that there were two Reports and Information items (see pages 34 through 39 of the Committee book):

1. Station Maintenance Receivable Report Update

Mr. Johnson reported that the total amount billed to the counties for the period from April 1, 2015 through March 31, 2016 was \$162,233,323. All of it has been received.

Discussion: Mr. Albert inquired whether the basis for the charges are by number of stations or by usage. Mr. Johnson indicated that while historically billing had been on actual stations, it was cumbersome to track and maintain, so there was legislation to establish a baseline and incorporate incremental increases per inflation.

2. Review and Assessment of the Finance Committee Charter

Mr. Johnson reported there were no changes to the charter, but that it is included on the agenda annually so that members of the Committee may review and assess its adequacy.

C. Procurements

Mr. Barbosa reported there were three procurements for MTA Headquarters for personal service contracts related to providing Arts for Transit items at three specified stations for a total of \$675,000 (see pages 40 through 42 of the Committee book).

The Committee voted to recommend the procurement items before the Board for approval.

VI. Metro-North Railroad

A. Action Item

Mr. Johnson reported there was one action item for Metro-North requesting that the Board approve a modification to the existing agreement with Rockland County to implement several initiatives, including incorporating changes to the Uniticket reimbursement rate, expanding the Saturday Tappan Zee express bus between Rockland County and Metro-North's Hudson and Harlem lines in Westchester County, and instituting a new Sunday Tappan Zee express bus service (see pages 44 and 45 of the Committee book).

The Committee voted to recommend the action item before the Board for approval.

B. Procurements

Mr. Barbosa reported there were three procurements for Metro-North for a total of \$447,681,612, including one for an extension to an existing agreement to purchase 60 additional M-8 cars, one RFP related to miscellaneous services for certain locomotives, and one modification for additional funding for the acquisition and overall of a G35 locomotive, including installation of PTC (see pages 46 through 52 of the Committee book).

The Committee voted to recommend the procurement items before the Board for approval. Mr. Pally voted against the procurement related to the purchase of M-8 cars, citing his previous comments and concerns regarding serving alcohol on trains and at Metro-North stations. Mr. Moerdler abstained from the vote on the purchase of M-8 cars.

Mr. Barbosa reported there was one ratification for Board approval to award a contract change order for a miscellaneous service contract with Masabi, LLC (see page 53 of the Committee book).

The Committee voted to recommend the ratification item before the Board for approval.

VII. LIRR

A. Procurement

Mr. Barbosa reported there was one walk-in competitive procurement for an RFP for the LIRR Expansion Project, which will add approximately ten miles of third track along LIRR's Main Line between Floral Park and Hicksville in Nassau County.

The Committee voted to recommend the procurement item before the Board for approval.

VIII. NYCT/MTA Bus Operations

A. Procurements

Mr. Barbosa reported there were five procurements for a total of \$198,689,147, including one non-competitive procurement for two modifications related to the Digital Information Screen systems being tested in the network (see pages 54 through 63 of the Committee book).

The Committee voted to recommend the procurement items before the Board for approval.

IX. Bridges and Tunnels

There were no items for Bridges and Tunnels.

X. FMTAC

There were no items for FMTAC.

XI. MTA Consolidated Reports

This month's consolidated reports include: September results versus the Mid-Year Forecast, including statements of operations; overtime reports; report on subsidies; positions; subsidy, interagency loans and stabilization fund transactions; farebox recovery ratios; MTA ridership; and the fuel hedge program (see pages 64 through 117 of the Committee book).

XII. Real Estate Agenda

A. Action Items

Mr. Rosen reported there were three action items (see pages 118 through 139 of the Committee book for all real estate action and information items).

Discussion: Mr. Zuckerman inquired regarding the item related to a food vendor at Breakneck Ridge trail in Fishkill, Dutchess County, and voiced his concerns regarding a food truck potentially increasing the flow of people in that area, noting the current congestion near the hiking trails and impact on local communities in both Dutchess and Putnam Counties. He further commented that he hopes the MTA staff will move slowly in this process to ensure community concerns are addressed. Mr. Rosen confirmed that staff will review and work to address his concerns.

Mr. Albert inquired regarding the Transit Wireless license agreements and asked for clarification on whether any of the A Division (numbered lines) above ground stations are covered. Mr. Rosen indicated that A Division above ground stations are not covered, and noted the modification is to provide coverage for the B Division (lettered lines) above ground stations, partly because of the deployment of the countdown clocks on those lines. Mr. Albert further inquired regarding the digital countdown displays that are being tested on the Broadway lines (N, Q, W, R) and whether accuracy results are available to report to the Board. Mr. Mark Bienstock, NYCT Systems and Security Program Officer, noted the tests, which utilize low-energy Bluetooth beacons, have been successful, with 95 to 98% accuracy results thus far.

The Committee voted to recommend the action items before the Board for approval.

XIII. Adjournment

Upon motion duly made and seconded, the November 14, 2016 meeting of the Finance Committee was adjourned at 1:00 PM.

Respectfully submitted,

Marcia Tannian
Assistant Director, Finance

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2017 DRAFT Finance Committee Work Plan

I. RECURRING AGENDA ITEMS

BudgetWatch
FinanceWatch
Approval of Minutes
Procurements (if any)
Action Items (if any)
MTA Consolidated Reports

Responsibility

MTA Div. Mgmt/Budget
MTA Finance
Board Secretary
Procurement
Agency
MTA Budget

II. SPECIFIC AGENDA ITEMS

Responsibility

January 2017

Other:

Special Report: Finance Department 2016 Year-End Review
DRAFT MTA Financial Statements 3rd Quarter for the Nine-Months
Ended September 2016

MTA Finance

MTA Comptroller

February 2017

Action Items:

2016 TBTA Operating Surplus
Mortgage Recording Tax – Escalation Payments to Dutchess,
Orange and Rockland Counties

B&T/MTA

MTA Treasury, MTA
Div. Mgmt/Budget

Other:

February Financial Plan 2017-2020

MTA Div. Mgmt/Budget

March 2017

Action Items:

All-Agency Real Property Disposition Guidelines and All-Agency
Personal Property Disposition Guidelines

MTA Real Estate/MTA
Corporate Compliance
MTA Proc., Agencies

All-Agency Annual Procurement Report

Other:

MTA Prompt Payment Annual Report 2016

MTA Business Service
Center

Contract Change Order Report

MTA Proc., Agencies

April 2017

Action Item:

MTA 2016 Annual Investment Report

MTA Treasury

Other:

Annual Report on Variable Rate Debt
DRAFT MTA Financial Statements Fiscal Year-End Twelve-Months
Ended December 2016

MTA Finance

MTA Comptroller

May 2017

Other:

Station Maintenance Billings Approval	MTA Comptroller
Annual Pension Fund Report (Audit Committee Members to be invited)	MTA Labor
Annual FMTAC Meeting	MTA RIM
Annual FMTAC Investment Performance Report	MTA RIM

June 2017

Action Item:

PWEF Assessment	MTA Capital Program Mgmt/ MTA Div. Mgmt/Budget
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Other:

Update on the Business Service Center	MTA Business Service Center
Update on IT Transformation	MTA Information Technology
Update on Procurement Consolidation	MTA Procurement
Contract Change Order Report	MTA Proc., Agencies
DRAFT MTA Financial Statements 1 st Quarter for the Three-Months Ended March 2017	MTA Comptroller

July 2017

2018 Preliminary Budget/July Financial Plan 2018-2021 (Joint Session with MTA Board)	MTA Div. Mgmt/Budget
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September 2017

2018 Preliminary Budget/July Financial Plan 2018-2021 (materials previously distributed)	MTA Div. Mgmt/Budget
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Action Item:

Resolution to Authorize the Execution, Filing and Acceptance of Federal Funds	MTA Grant Mgmt.
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Other:

Contract Change Order Report	MTA Proc., Agencies
DRAFT MTA Financial Statements 2 nd Quarter for the Six-Months Ended June 2017	MTA Comptroller

October 2017

2018 Preliminary Budget/July Financial Plan 2018-2021 (materials previously distributed)	MTA Div. Mgmt/Budget
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Other:

Annual Review of MTA's Derivative Portfolio - Including Fuel Hedge	MTA Finance
MTA 2017 Semi-Annual Investment Report	MTA Treasury

November 2017

2018 Final Proposed Budget/November Financial Plan 2018-2021 (Joint Session with MTA Board)	MTA Div. Mgmt/Budget
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Other:

Station Maintenance Billing Update	MTA Comptroller
Review and Assessment of the Finance Committee Charter	MTA CFO

December 2017

Adoption of 2018 Budget and 2018-2021 Financial Plan

MTA Div. Mgmt/Budget

Action Items:

MTA and TBTA Reimbursement Resolutions for Federal Tax Purposes	MTA Finance
Authorization to issue Transportation Revenue Bonds, Dedicated Tax Fund Bonds, TBTA General Revenue Bonds, and TBTA Subordinated Revenue Bonds	MTA Finance
Approval of Supplemental Resolutions Authorizing Refunding Bonds	MTA Finance

Other:

Draft 2018 Finance Committee Work Plan	MTA Div. Mgmt/Budget
Contract Change Order Report	MTA Proc., Agencies

DETAILS

JANUARY 2017

Other:

Special Report: Finance Department 2016 Year-End Review

The MTA Finance Department will present a report that summarizes financing activities for 2016.

DRAFT MTA Financial Statements for the Nine-Months Ended, September 2016

Included for information is a copy of the Independent Accountant's Review Report of MTA Financial Statements for the Nine-Months ended, September 30, 2016.

FEBRUARY 2017

Action Items:

2016 TBTA Operating Surplus

MTA Bridges and Runnels should be prepared to answer questions on a staff summary requesting (1) transfer of TBTA 2016 Operating Surplus and Investment Income, (2) advances of TBTA 2016 Operating Surplus, and (3) the deduction from 2017 TBTA Operating Revenue, funds which shall be paid into the Necessary Reconstruction Reserve.

Mortgage Recording Tax – Escalation Payments to Dutchess, Orange and Rockland Counties

By State statute, each of these counties is entitled to a share of MTA's MRT-2 tax receipts. The amount may be no less than they received in 1987 (even if the taxes collected fall below the 1987 levels), but there are proportional upward adjustments if taxes collected in the particular county exceed the 1987 totals. Such upward adjustments are expected to be required this year, based on the 2009 experience thus far. The MTA Budget and Treasury Division will be prepared to answer questions on the related Staff Summary authorizing the payments.

Other:

February Financial Plan 2017-2020

The MTA Division of Management and Budget will present for information purposes a revised 2017-2020 Financial Plan reflecting any technical adjustments from the Adopted Budget and the incorporation of certain “below-the-line” policy actions into the baseline.

MARCH 2017

Action Items:

All-Agency Real Property Disposition Guidelines and All-Agency Personal Property Disposition Guidelines

Board approval of above guidelines as required annually by Public Authorities Law Sections 2895-2897. MTA Real Estate and MTA Corporate Compliance should be prepared to answer questions regarding these guidelines.

All-Agency Annual Procurement Report

The Agencies and the MTA Procurement Division should be prepared to answer questions on this voluminous State-required report.

Other:

MTA Annual Prompt Payment Status Report

The Senior Director of the MTA Business Service Center should be prepared to discuss a report, to be included in the Agenda materials, that reviews MTA-wide success in meeting mandated prompt-payment deadlines (including the interest penalties incurred as a result of late payment).

Contract Change Order Report

Change orders that would have required Board approval prior to the July 2013 Governance Committee measure increasing the approval threshold to \$750,000 are included in this quarterly report, for information only. All such contract change orders are reported to the Finance Committee; in addition, such capital contract change orders are reported to the CPOC Committee.

APRIL 2017

Action Item:

MTA Annual Investment Report

The MTA Treasury Division should be prepared to answer questions on this State-required report.

Other:

Annual Report on Variable Rate Debt

The MTA Finance Department will present a report that summarizes the performance of the MTA's various variable-rate debt programs, including a discussion of the savings (compared to long-term rates) achieved through variable rate debt and a discussion on the current policy and limits on the use of variable rate debt.

DRAFT MTA Financial Statements for the Twelve-Months Ended, December 2016

Included for information is a copy of the Independent Accountant's Audit Report of MTA Financial Statements for the Twelve-Months ended, December 31, 2016.

MAY 2017

Other:

Station Maintenance Billings Approval

Under the Public Authorities Law, the Board is required to certify to the City and the counties in the Metropolitan Transportation District the total costs to MTA for operating and maintaining Commuter Railroad passenger stations. The City and county assessments are both now determined through a formula.

Annual Pension Fund Report

The MTA Labor Division, representatives of the various pension fund boards, and their pension consultants should be prepared to answer questions on a report, to be included in the Agenda materials, that reviews the 2016 investment performance and other experience of the various MTA pension funds. Among other matters, this report should (i) make recommendations on appropriate investment-earnings assumptions in light of the experience of the past three years; (ii) discuss the implications for asset allocations in light of such recommendations; (iii) discuss the effect on (under) funding of the systems in light of such performance and recommendation; (iv) provide appropriate comparisons with other public pension systems; and (v) solicit the opinions of the Board Operating Committees on these recommendations in light of their effects on Agency budgets.

Annual Meeting of the First Mutual Transportation Assurance Company

The MTA's Captive Insurance Company will hold its statutorily required annual meeting in which it will review the prior year's operations as well as submit its financial statements and actuarial report for final approval.

Annual First Mutual Transportation Assurance Company Investment Performance Report

The MTA Risk and Insurance Management Divisions, along with the FMTAC's outside investment managers, should be prepared to answer questions on a report that reviews outside-managers performance.

JUNE 2017

Action Item:

PWEF Assessment

The MTA Division of Management and Budget, assisted by MTA Capital Program Management, should prepare the usual annual staff summary authorizing the payment of this assessment to the State. The State levies an assessment of the value of construction-contract awards to cover its cost of enforcing prevailing-wage legislation.

Other:

IT Transformation

IT Management will present progress made to date to promote IT Transformation. A general organizational overview will be provided and an outline of key milestones and project deliverables will be shared. Initiatives that have made IT more resilient will also be discussed.

Update on Procurement Consolidation

Procurement Management will present progress made to date to promote Non-Core Procurement Consolidation. A general organizational overview will be provided and an outline of key milestones and project deliverables will be shared.

Contract Change Order Report

Change orders that would have required Board approval prior to the July 2013 Governance Committee measure increasing the approval threshold to \$750,000 are included in this quarterly report, for information only. All such contract change orders are reported to the Finance Committee; in addition, such capital contract change orders are reported to the CPOC Committee.

DRAFT MTA Financial Statements for the Three-Months Ended, March 2017

Included for information is a copy of the Independent Accountant's Review Report of MTA Financial Statements for the Three-Months ended, March 31, 2017.

JULY 2017

2018 Preliminary Budget/July Financial Plan 2018-2021 (Joint Session with MTA Board)

The Chief Financial Officer and MTA Budget Division will present an updated forecast for 2017, a Preliminary Budget for 2017, and an updated Financial Plan for 2018-2021.

SEPTEMBER 2017

2018 Preliminary Budget/July Financial Plan 2018-2021

Public comment will be accepted on the 2018 Preliminary Budget.

Action Item:

Resolution to Authorize the Execution, Filing and Acceptance of Federal Funds

The MTA Office of Grant Management will hold a public hearing in accordance with Federal law and then request the Board's approval of a resolution that would authorize the Chairman or a designated officer to execute the applications and accept grants of financial assistance from the Federal government.

Other:

Contract Change Order Report

Change orders that would have required Board approval prior to the July 2013 Governance Committee measure increasing the approval threshold to \$750,000 are included in this quarterly report, for information only. All such contract change orders are reported to the Finance Committee; in addition, such capital contract change orders are reported to the CPOC Committee.

DRAFT MTA Financial Statements for the Six-Months Ended, June 2017

Included for information is a copy of the Independent Accountant's Review Report of MTA Financial Statements for the Six-Months ended, June 30, 2017.

OCTOBER 2017

2018 Preliminary Budget/July Financial Plan 2018-2021

Public comment will be accepted on the 2016 Preliminary Budget.

Other:

Update on Business Service Center

The Business Service Center will provide an update on its initiatives and upcoming project milestones. Operational performance metrics will also be shared.

Annual Review of MTA's Derivative Portfolio – Including Fuel Hedge

The Finance Department will provide an update on MTA's portfolio of derivative contracts.

MTA 2017 Semi-Annual Investment Report

The MTA Treasury Division should be prepared to answer questions on this report.

NOVEMBER 2017

2018 Final Proposed Budget/November Financial Plan 2018-2021 (Joint Session with MTA Board)

The Chief Financial Officer and MTA Budget Division will present an updated forecast for 2016, a Final Proposed Budget for 2017, and an updated Financial Plan for 2018-2021.

Other:

Station Maintenance Billing Update

The MTA Comptroller Division will provide a report on the collection and audit status of station maintenance billings issued as of June 1, 2017.

Review and Assessment of the Finance Committee Charter

MTA Chief Financial Officer will present the most updated Finance Committee Charter to the Finance Committee members for them to review and assess its adequacy. The annual assessment is required under the current Committee Charter.

DECEMBER 2017

Adoption of 2018 Budget and 2018-2021 Financial Plan

The Committee will recommend action to the Board on the Final Proposed Budget for 2018 and 2018-2021 Financial Plan.

Action Item:

Approval of MTA and TBTA Reimbursement Resolutions for Federal Tax Purposes.

Board approval required to allow for the reimbursement of capital expenditures at a later date from the proceeds of tax-exempt bond sales.

Approval of Supplemental Resolutions Authorizing New Money Bonds.

Board approval to allow for the issuance of new money bonds to fund existing approved bond financed capital projects under the Transportation Revenue Bond Obligation Resolution, the Dedicated Tax Fund Obligation Resolution, and in the case of Bridge & Tunnel Capital Projects, the Triborough Bridge and Tunnel Authority Senior and Subordinate Obligation Resolutions.

Approval of Supplemental Resolutions Authorizing Refunding Bonds

Board action required to allow for the refunding to fixed-rate bonds from time to time provided that such refundings comply with the Board approved refunding policy.

Other:

Draft 2018 Finance Committee Work Plan

The MTA Chief Financial Officer will present a proposed 2018 Finance Committee Work Plan that will address major issues, SBP and budget process issues, and reports required by statute.

Contract Change Order Report

Change orders that would have required Board approval prior to the July 2013 Governance Committee measure increasing the approval threshold to \$750,000 are included in this quarterly report, for information only. All such contract change orders are reported to the Finance Committee; in addition, such capital contract change orders are reported to the CPOC Committee.

FinanceWatch

December 12, 2016

Upcoming Financings

New Money

\$300,000,000 Triborough Bridge and Tunnel Authority General Revenue Bonds, Series 2017A

In January 2017, MTA plans to issue \$300 million Triborough Bridge and Tunnel Authority General Revenue Bonds, Series 2017A to finance bridge and tunnel projects. This transaction will be led by book-running senior manager Goldman, Sachs & Co. Orrick, Herrington & Sutcliffe LLP and Bryant Rabbino LLP will serve as co-bond counsel.

\$200,000,000 Transportation Revenue Refunding Bonds, Series 2017A

In January 2017, MTA plans to issue long-term bonds to pay off the existing outstanding 2016A-2 Bond Anticipation Notes, in the amount of \$200 million. This transaction will be led by book-running senior manager Jefferies. Nixon Peabody LLP and D. Seaton and Associates will serve as co-bond counsel.

\$700,000,000 MTA Transportation Revenue Bond Anticipation Notes, Series 2017A

In January 2017, MTA expects to issue \$700 million of MTA Transportation Revenue Bond Anticipation Notes, Series 2017A through a competitive bidding process, to finance existing approved transit and commuter projects. Nixon Peabody LLP and D. Seaton and Associates will serve as co-bond counsel.

Remarketing

\$100,000,000 MTA Transportation Revenue Variable Rate Refunding Bonds, Subseries 2002D-2a

In January 2017, MTA will effectuate a mandatory tender and remarket \$100 million of MTA Transportation Revenue Variable Rate Refunding Bonds, Subseries 2002D-2a because its current interest rate period is set to expire by its terms. This transaction will be led by book-running manager RBC Capital Markets. Orrick, Herrington & Sutcliffe LLP and Bryant Rabbino LLP will serve as co-bond counsel.

Fuel Hedging Program

\$4,879,859 Diesel Fuel Hedge

On November 22, 2016, MTA executed a 2,927,330 gallon ultra-low sulfur diesel fuel hedge with Goldman, Sachs & Co./J Aron at an all-in price of \$1.6670/gallon. MTA's existing approved commodity counterparties participated in bidding on the transaction: Goldman, Sachs & Co./ J Aron; J.P. Morgan Ventures Energy Corporation; and Macquarie Group. The hedge covers the period from November 2017 through October 2018.

**METROPOLITAN TRANSPORTATION AUTHORITY
JULY FINANCIAL PLAN - Mid-Year Forecast**

**Debt Service
November 2016**

(\$ in millions)

	Mid-Year Forecast	Actual	Variance	% Var	Explanation
Dedicated Tax Fund:					
NYC Transit	\$10.0	\$0.0	\$10.0		
Commuter Railroads	1.0	0.0	1.0		
Dedicated Tax Fund Subtotal	\$11.1	\$0.0	\$11.1	100.0%	Reversal of prior period timing difference.
MTA Transportation Revenue:					
NYC Transit	\$59.6	\$27.2	\$32.3		
Commuter Railroads	43.4	17.4	26.0		
MTA Bus	2.0	4.5	(2.5)		
SIRTOA	0.1	0.1	(0.0)		
MTA Transportation Revenue Subtotal	\$105.1	\$49.3	\$55.8	53.1%	Timing of debt service as November 2016 debt service was partially prefunded in prior month.
MTA Transportation Revenue BANs:					
NYC Transit	\$0.0	\$0.0	\$0.0		
Commuter Railroads	0.0	0.0	0.0		
MTA Bus	0.0	0.0	0.0		
MTA Transp Revenue BANs Subtotal	\$0.0	\$0.0	\$0.0	0.0%	
2 Broadway COPs:					
NYC Transit	\$1.6	\$0.0	\$1.6		
Bridges & Tunnels	0.2	0.0	0.2		
MTA HQ	0.2	0.0	0.2		
2 Broadway COPs Subtotal	\$2.0	\$0.0	\$2.0	100.0%	Were refunded in October 2016.
TBTA General Resolution (2):					
NYC Transit	\$14.7	\$16.8	(\$2.1)		
Commuter Railroads	6.9	7.9	(1.0)		
Bridges & Tunnels	18.7	23.7	(5.0)		
TBTA General Resolution Subtotal	\$40.4	\$48.5	(\$8.1)	-20.1%	Timing of debt service deposits.
TBTA Subordinate (2):					
NYC Transit	\$6.1	\$5.7	\$0.4		
Commuter Railroads	2.7	2.5	0.2		
Bridges & Tunnels	2.4	2.2	0.2		
TBTA Subordinate Subtotal	\$11.1	\$10.4	\$0.7	6.3%	Lower than budgeted variable rates.
Total Debt Service	\$169.7	\$108.3	\$61.4	36.2%	
Debt Service by Agency:					
NYC Transit	\$92.0	\$49.8	\$42.2		
Commuter Railroads	54.1	27.8	26.2		
MTA Bus	2.0	4.5	(2.5)		
SIRTOA	0.1	0.1	(0.0)		
Bridges & Tunnels	21.4	26.0	(4.6)		
MTAHQ	0.2	0.0	0.2		
Total Debt Service	\$169.7	\$108.3	\$61.4	36.2%	

Notes:

(1) Forecasted debt service is calculated based upon projected monthly deposits from available pledged revenues into debt service accounts. Actual payments to bondholders are made from the debt service accounts when due as required for each series of bonds and do not conform to this schedule.

(2) Generally, the calendarization of monthly debt service deposits is calculated by dividing projected annual debt service by 12. Month to month variations ("timing differences") on the existing debt portfolio can occur based upon, among other things, (a) for all bonds, the date when income from the securities in which the debt service accounts are invested becomes available varies, (b) for variable rate financings, differences between (i) the budgeted interest rate and the actual interest rate, (ii) projected interest payment dates to bondholders and actual interest payment dates to bondholders, and (iii) projected monthly funding dates for accrued debt service and actual funding dates, (c) for transactions with swaps, the difference between when MTA/TBTA funds debt service and the receipt of the corresponding swap payment by the counterparty, and difference between rates received and rates paid and (d) for commercial paper, the interest payment date is the date of the maturity of the commercial paper and the dealers set the term of the commercial paper from 1 to 270 days, which is not foreseeable at the time the annual debt service budgets are prepared.

(3) Debt service is allocated among Transit, Commuter, MTA Bus, and TBTA categories based on actual spending of bond proceeds for approved capital projects. Allocation of 2 Broadway COPs is based on occupancy.

Totals may not add due to rounding.

**METROPOLITAN TRANSPORTATION AUTHORITY
JULY FINANCIAL PLAN - Mid-Year Forecast**

Debt Service

November 2016 Year-to-Date

(\$ in millions)

	Mid-Year Forecast	Actual	Variance	% Var	Explanation
Dedicated Tax Fund:					
NYC Transit	\$265.4	\$265.9	(\$0.4)		
Commuter Railroads	54.5	56.7	(2.2)		
Dedicated Tax Fund Subtotal	\$320.0	\$322.3	(\$2.6)	-0.8%	
MTA Transportation Revenue:					
NYC Transit	\$795.2	\$776.6	\$18.5		
Commuter Railroads	510.2	493.4	16.8		
MTA Bus	23.4	28.2	(4.8)		
SIRTOA	0.8	1.0	(0.2)		
MTA Transportation Revenue Subtotal	\$1,329.6	\$1,299.0	\$30.4	2.3%	Same as monthly variance explanation.
MTA Transportation Revenue BANs:					
NYC Transit	\$5.6	\$0.0	\$5.6		
Commuter Railroads	5.9	0.0	5.9		
MTA Bus	0.0	0.0	0.0		
MTA Transp Revenue BANs Subtotal	\$11.5	\$0.0	\$11.5	100.0%	Included in Transportation Revenue above.
2 Broadway COPs:					
NYC Transit	\$17.0	\$16.0	\$0.9		
Bridges & Tunnels	2.4	1.9	0.5		
MTA HQ	2.3	1.9	0.4		
2 Broadway COPs Subtotal	\$21.7	\$20.4	\$1.8	8.3%	Same as monthly variance explanation.
TBTA General Resolution (2):					
NYC Transit	\$159.6	\$160.4	(\$0.9)		
Commuter Railroads	75.0	75.4	(0.4)		
Bridges & Tunnels	233.8	226.0	7.8		
TBTA General Resolution Subtotal	\$468.4	\$461.7	\$6.6	1.4%	
TBTA Subordinate (2):					
NYC Transit	\$65.7	\$64.1	\$1.6		
Commuter Railroads	28.9	28.4	0.4		
Bridges & Tunnels	26.0	25.3	0.6		
TBTA Subordinate Subtotal	\$120.6	\$117.9	\$2.7	2.2%	
Total Debt Service	\$2,271.7	\$2,221.1	\$50.6	2.2%	
Debt Service by Agency:					
NYC Transit	\$1,308.5	\$1,283.1	\$25.4		
Commuter Railroads	674.5	653.7	20.8		
MTA Bus	23.4	47.5	(24.1)		
SIRTOA	0.8	4.2	(3.4)		
Bridges & Tunnels	262.2	230.9	31.3		
MTAHQ	2.3	1.9	0.4		
Total Debt Service	\$2,271.7	\$2,221.1	\$50.5	2.2%	

Notes:

(1) Forecasted debt service is calculated based upon projected monthly deposits from available pledged revenues into debt service accounts. Actual payments to bondholders are made from the debt service accounts when due as required for each series of bonds and do not conform to this schedule.

(2) Generally, the calendarization of monthly debt service deposits is calculated by dividing projected annual debt service by 12. Month to month variations ("timing differences") on the existing debt portfolio can occur based upon, among other things, (a) for all bonds, the date when income from the securities in which the debt service accounts are invested becomes available varies, (b) for variable rate financings, differences between (i) the budgeted interest rate and the actual interest rate, (ii) projected interest payment dates to bondholders and actual interest payment dates to bondholders, and (iii) projected monthly funding dates for accrued debt service and actual funding dates, (c) for transactions with swaps, the difference between when MTA/TBTA funds debt service and the receipt of the corresponding swap payment by the counterparty, and difference between rates received and rates paid and (d) for commercial paper, the interest payment date is the date of the maturity of the commercial paper and the dealers set the term of the commercial paper from 1 to 270 days, which is not foreseeable at the time the annual debt service budgets are prepared.

(3) Debt service is allocated among Transit, Commuter, MTA Bus, and TBTA categories based on actual spending of bond proceeds for approved capital projects. Allocation of 2 Broadway COPs is based on occupancy.

Totals may not add due to rounding.

METROPOLITAN TRANSPORTATION AUTHORITY
VARIABLE RATE: WEEKLY MODE
RATE RESETS REPORT (Trailing 6-Weeks)

Issue		TRB 2005E-2	TRB 2005E-3	TRB 2005D-1	TRB 2002G-1g	TRB 2012G-2					
Remarketing Agent		RBC	Loop Capital	Merrill Lynch	Goldman	TD Securities					
Liquidity Provider		RBC	Bank of Montreal	Helaba	TD Bank	TD Bank					
Liquidity/Insurer		LoC	LoC	LoC	LoC	LoC					
Par Outstanding (\$m)		75.00	75.00	150.00	42.55	125.00					
Swap Notional (\$m)		45.00	45.00	150.00	39.21	125.00					
Date	SIFMA	Spread to		Spread to		Spread to		Spread to		Spread to	
		Rate	SIFMA	Rate	SIFMA	Rate	SIFMA	Rate	SIFMA	Rate	SIFMA
10/26/2016	0.63%	0.62%	-0.01%	0.64%	0.01%	0.63%	0.00%	0.60%	-0.03%	0.60%	-0.03%
11/2/2016	0.56%	0.62%	0.06%	0.56%	0.00%	0.55%	-0.01%	0.60%	0.04%	0.53%	-0.03%
11/9/2016	0.55%	0.55%	0.00%	0.54%	-0.01%	0.55%	0.00%	0.54%	-0.01%	0.52%	-0.03%
11/16/2016	0.55%	0.55%	0.00%	0.54%	-0.01%	0.56%	0.01%	0.53%	-0.02%	0.52%	-0.03%
11/23/2016	0.55%	0.55%	0.00%	0.54%	-0.01%	0.54%	-0.01%	0.55%	0.00%	0.52%	-0.03%
11/30/2016	0.55%	0.55%	0.00%	0.54%	-0.01%	0.54%	-0.01%	0.55%	0.00%	0.52%	-0.03%

Transportation Revenue Bonds

Dedicated Tax Fund Bonds

Issue		TRB 2015E-2	TRB 2015E-3	TRB 2015E-4	DTF 2002B-1				
Remarketing Agent		Citigroup	Loop Capital	Loop Capital	Mitsubishi				
Liquidity Provider		Tokyo Mitsubishi	Bank of the West	Bank of the West	Tokyo Mitsubishi				
Liquidity/Insurer		LoC	LoC	LoC	LoC				
Par Outstanding (\$m)		250.00	200.00	50.00	150.00				
Swap Notional (\$m)		None	None	None	None				
Date	SIFMA	Spread to		Spread to		Spread to		Spread to	
		Rate	SIFMA	Rate	SIFMA	Rate	SIFMA	Rate	SIFMA
10/26/2016	0.63%	0.56%	-0.07%	0.54%	-0.09%	0.68%	0.05%	0.61%	-0.02%
11/2/2016	0.56%	0.52%	-0.04%	0.50%	-0.06%	0.60%	0.04%	0.54%	-0.02%
11/9/2016	0.55%	0.52%	-0.03%	0.50%	-0.05%	0.59%	0.04%	0.53%	-0.02%
11/16/2016	0.55%	0.52%	-0.03%	0.50%	-0.05%	0.59%	0.04%	0.54%	-0.01%
11/23/2016	0.55%	0.54%	-0.01%	0.52%	-0.03%	0.59%	0.04%	0.55%	0.00%
11/30/2016	0.55%	0.54%	-0.01%	0.52%	-0.03%	0.59%	0.04%	0.55%	0.00%

TBTA General Revenue Bonds

Issue		TBTA 2005B-3	
Remarketing Agent		Morgan Stanley	
Liquidity Provider		Tokyo Mitsubishi	
Liquidity/Insurer		LoC	
Par Outstanding (\$m)		192.20	
Swap Notional (\$m)		192.20	
Date	SIFMA	Spread to	
		Rate	SIFMA
10/26/2016	0.63%	0.68%	0.05%
11/2/2016	0.56%	0.58%	0.02%
11/9/2016	0.55%	0.56%	0.01%
11/16/2016	0.55%	0.56%	0.01%
11/23/2016	0.55%	0.56%	0.01%
11/30/2016	0.55%	0.58%	0.03%

Issue		TBTA 2001B	TBTA 2001C	TBTA 2003B-1	
Remarketing Agent		Citigroup	Citigroup	PNC Capital	
Liquidity Provider		State Street	Tokyo Mitsubishi	PNC Bank	
Liquidity/Insurer		LoC	LoC	LoC	
Par Outstanding (\$m)		117.81	117.80	81.91	
Swap Notional (\$m)		None	None	2.05	
Date	SIFMA	Spread to		Spread to	
		Rate	SIFMA	Rate	SIFMA
10/25/2016	0.63%	0.52%	-0.11%	0.68%	0.05%
11/1/2016	0.56%	0.49%	-0.07%	0.58%	0.02%
11/8/2016	0.55%	0.49%	-0.06%	0.56%	0.01%
11/15/2016	0.55%	0.49%	-0.06%	0.56%	0.01%
11/22/2016	0.55%	0.49%	-0.06%	0.56%	0.01%
11/29/2016	0.55%	0.52%	-0.03%	0.58%	0.03%

Issue		TBTA 2005A	TBTA SUB 2013D-2a	TBTA SUB 2013D-2b	
Remarketing Agent		TD Securities	BofA Merrill	BofA Merrill	
Liquidity Provider		TD Bank	BofA Merrill	BofA Merrill	
Liquidity/Insurer		LoC	LoC (Taxable)	LoC (Taxable)	
Par Outstanding (\$m)		118.68	58.02	90.45	
Swap Notional (\$m)		23.23	None	None	
Outstanding (\$m)	SIFMA	Spread to		Spread to	
		Rate	SIFMA	Rate	SIFMA
10/25/2016	0.63%	0.60%	-0.03%	0.70%	0.07%
11/1/2016	0.56%	0.55%	-0.01%	0.65%	0.09%
11/8/2016	0.55%	0.52%	-0.03%	0.65%	0.10%
11/15/2016	0.55%	0.52%	-0.03%	0.65%	0.10%
11/22/2016	0.55%	0.53%	-0.02%	0.65%	0.10%
11/29/2016	0.55%	0.54%	-0.01%	0.65%	0.10%

Report Date 11/30/2016

**METROPOLITAN TRANSPORTATION AUTHORITY
VARIABLE RATE: FLOATING RATE NOTES (SIFMA)
RATE RESETS REPORT (Trailing 6-Weeks)**

Transportation Revenue Bonds

Issue		TRB 2012A-2	TRB 2012A-3	TRB 2014D-2	TRB 2015A-2				
Remarketing Agent		N/A	N/A	N/A	N/A				
Initial Purchase Date		06/01/19	04/01/19	11/15/2017	6/1/2020				
Liquidity/Insurer		None	None	None	None				
Par Outstanding (\$m)		50.00	50.00	165.00	250.00				
Swap Notional (\$m)		None	None	None	None				
Date	SIFMA	Rate	Spread to SIFMA	Rate	Spread to SIFMA	Rate	Spread to SIFMA	Rate	Spread to SIFMA
10/26/2016	0.63%	1.21%	0.58%	1.13%	0.50%	0.99%	0.36%	1.21%	0.58%
11/2/2016	0.56%	1.14%	0.58%	1.06%	0.50%	0.92%	0.36%	1.14%	0.58%
11/9/2016	0.55%	1.13%	0.58%	1.05%	0.50%	0.91%	0.36%	1.13%	0.58%
11/16/2016	0.55%	1.13%	0.58%	1.05%	0.50%	0.91%	0.36%	1.13%	0.58%
11/23/2016	0.55%	1.13%	0.58%	1.05%	0.50%	0.91%	0.36%	1.13%	0.58%
11/30/2016	0.55%	1.13%	0.58%	1.05%	0.50%	0.91%	0.36%	1.13%	0.58%

Dedicated Tax Fund Bonds

Issue		DTF 2002B-3a	DTF 2002B-3b	DTF 2002B-3c	DTF 2002B-3d				
Remarketing Agent		N/A	N/A	N/A	N/A				
Maturity Date		11/01/17	11/01/18	11/01/19	11/01/20				
Liquidity/Insurer		None	None	None	None				
Par Outstanding (\$m)		46.60	48.60	50.70	15.90				
Swap Notional (\$m)		None	None	None	None				
Date	SIFMA	Rate	Spread to SIFMA	Rate	Spread to SIFMA	Rate	Spread to SIFMA	Rate	Spread to SIFMA
10/26/2016	0.63%	1.38%	0.75%	1.53%	0.90%	1.58%	0.95%	1.63%	1.00%
11/2/2016	0.56%	1.31%	0.75%	1.46%	0.90%	1.51%	0.95%	1.56%	1.00%
11/9/2016	0.55%	1.30%	0.75%	1.45%	0.90%	1.50%	0.95%	1.55%	1.00%
11/16/2016	0.55%	1.30%	0.75%	1.45%	0.90%	1.50%	0.95%	1.55%	1.00%
11/23/2016	0.55%	1.30%	0.75%	1.45%	0.90%	1.50%	0.95%	1.55%	1.00%
11/30/2016	0.55%	1.30%	0.75%	1.45%	0.90%	1.50%	0.95%	1.55%	1.00%

Issue		DTF 2008A-2a	DTF 2008A-2b	DTF 2008B-3a	DTF 2008B-3b	DTF 2008B-3c					
Remarketing Agent		Goldman Sachs	Goldman Sachs	Goldman Sachs	Goldman Sachs	Goldman Sachs					
Maturity Date		11/01/26	11/01/31	11/01/28	11/01/30	11/01/34					
Liquidity/Insurer		None	None	None	None	None					
Par Outstanding (\$m)		83.74	84.86	35.00	54.47	44.74					
Swap Notional (\$m)		82.04	83.47	None	None	None					
Date	SIFMA	Rate	Spread to SIFMA	Rate	Spread to SIFMA	Rate	Spread to SIFMA	Rate	Spread to SIFMA		
10/26/2016	0.63%	1.01%	0.38%	1.21%	0.58%	1.00%	0.37%	0.99%	0.36%	1.08%	0.45%
11/2/2016	0.56%	0.94%	0.38%	1.14%	0.58%	0.93%	0.37%	0.92%	0.36%	1.01%	0.45%
11/9/2016	0.55%	0.93%	0.38%	1.13%	0.58%	0.92%	0.37%			1.00%	0.45%
11/16/2016	0.55%	0.93%	0.38%	1.13%	0.58%	0.92%	0.37%	Now in Fixed Rate Mode		1.00%	0.45%
11/23/2016	0.55%	0.93%	0.38%	1.13%	0.58%	0.92%	0.37%			1.00%	0.45%
11/30/2016	0.55%	0.93%	0.38%	1.13%	0.58%	0.92%	0.37%			1.00%	0.45%

TBTA General Revenue Bonds

Issue		TBTA SUB 2000ABCD-3	TBTA SUB 2000ABCD-4	TBTA SUB 2000ABCD-5			
Remarketing Agent		N/A	N/A	N/A			
Initial Purchase Date		1/1/2017	1/1/2018	1/1/2019			
Liquidity/Insurer		None	None	None			
Par Outstanding (\$m)		36.60	38.85	18.85			
Swap Notional (\$m)		21.66	22.99	11.15			
Date	SIFMA	Rate	Spread to SIFMA	Rate	Spread to SIFMA	Rate	Spread to SIFMA
10/26/2016	0.63%	0.88%	0.25%	0.98%	0.35%	1.07%	0.44%
11/2/2016	0.56%	0.81%	0.25%	0.91%	0.35%	1.00%	0.44%
11/9/2016	0.55%	0.80%	0.25%	0.90%	0.35%	0.99%	0.44%
11/16/2016	0.55%	0.80%	0.25%	0.90%	0.35%	0.99%	0.44%
11/23/2016	0.55%	0.80%	0.25%	0.90%	0.35%	0.99%	0.44%
11/30/2016	0.55%	0.80%	0.25%	0.90%	0.35%	0.99%	0.44%

Report Date 11/30/2016

**METROPOLITAN TRANSPORTATION AUTHORITY
VARIABLE RATE: FLOATING RATE NOTES (LIBOR)
RATE RESETS REPORT (Trailing 6-Weeks)**

Transportation Revenue Bonds

Issue		TRB 2002D-2a	TRB 2002D-2b	TRB 2002G-1c			
Remarketing Agent		N/A	N/A	N/A			
Initial Purchase Date		5/15/2017	5/15/2018	Matured			
Liquidity/Insurer		None	None	None			
Par Outstanding (\$m)		100.00	100.00	13.26			
Swap Notional (\$m)		100.00	100.00	12.22			
Date	67% of 1M LIBOR	Rate	Spread to 1M LIBOR	Rate	Spread to 1M LIBOR	Rate	Spread to 1M LIBOR
10/26/2016	0.36%	0.83%	0.47%	0.96%	0.60%	1.04%	0.68%
11/2/2016	0.36%	0.84%	0.48%	0.97%	0.61%		
11/9/2016	0.36%	0.84%	0.48%	0.97%	0.61%		
11/16/2016	0.37%	0.84%	0.47%	0.97%	0.60%	Matured	
11/23/2016	0.39%	0.84%	0.45%	0.97%	0.58%		
11/30/2016	0.41%	0.84%	0.42%	0.97%	0.55%		

Issue		TRB 2002G-1d	TRB 2002G-1f	TRB 2002G-1h	TRB 2011B				
Remarketing Agent		N/A	N/A	N/A	N/A				
Initial Purchase Date		11/1/2017	11/1/2018	2/1/2022	11/1/2017				
Liquidity/Insurer		None	None	None	None				
Par Outstanding (\$m)		13.80	42.58	56.89	99.56				
Swap Notional (\$m)		12.72	39.24	52.43	46.56				
Date	67% of 1M LIBOR	Rate	Spread to 1M LIBOR	Rate	Spread to 1M LIBOR	Rate	Spread to 1M LIBOR	Rate	Spread to 1M LIBOR
10/26/2016	0.36%	1.18%	0.82%	0.83%	0.47%	1.20%	0.84%	0.70%	0.34%
11/2/2016	0.36%	1.19%	0.83%	0.84%	0.48%	1.18%	0.82%	0.71%	0.35%
11/9/2016	0.36%	1.19%	0.83%	0.84%	0.48%	1.18%	0.82%	0.71%	0.35%
11/16/2016	0.37%	1.19%	0.82%	0.84%	0.47%	1.18%	0.81%	0.71%	0.34%
11/23/2016	0.39%	1.19%	0.80%	0.84%	0.45%	1.18%	0.79%	0.71%	0.32%
11/30/2016	0.41%	1.19%	0.77%	0.84%	0.42%	1.18%	0.76%	0.71%	0.29%

Issue		TRB 2012G-1	TRB 2012G-3	TRB 2012G-4			
Remarketing Agent		N/A	N/A	N/A			
Initial Purchase Date		11/1/2019	2/1/2020	11/1/2017			
Liquidity/Insurer		None	None	None			
Par Outstanding (\$m)		84.45	75.00	73.40			
Swap Notional (\$m)		84.45	75.00	73.40			
Date	67% of 1M LIBOR	Rate	Spread to 1M LIBOR	Rate	Spread to 1M LIBOR	Rate	Spread to 1M LIBOR
10/26/2016	0.36%	0.65%	0.29%	1.05%	0.69%	1.19%	0.83%
11/2/2016	0.36%	0.66%	0.30%	1.06%	0.70%	1.20%	0.84%
11/9/2016	0.36%	0.66%	0.30%	1.06%	0.70%	1.20%	0.84%
11/16/2016	0.37%	0.66%	0.29%	1.06%	0.69%	1.20%	0.83%
11/23/2016	0.39%	0.66%	0.27%	1.06%	0.67%	1.20%	0.81%
11/30/2016	0.41%	0.66%	0.24%	1.06%	0.64%	1.20%	0.78%

TBTA General Revenue Bonds

Issue		TBTA 2005B-4a	TBTA 2005B-4b	TBTA 2005B-4c	TBTA 2005B-4d	TBTA 2005B-4e					
Remarketing Agent		N/A	N/A	N/A	N/A	N/A					
Initial Purchase Date		2/1/2021	1/3/2017	2/1/2019	12/1/2018	1/1/2017					
Liquidity/Insurer		None	None	None	None	None					
Par Outstanding (\$m)		108.80	N/A	38.70	43.80	N/A					
Swap Notional (\$m)		108.80	N/A	38.70	43.80	N/A					
Date	67% of 1M LIBOR	Rate	Spread to 1M LIBOR	Rate	Spread to 1M LIBOR	Rate	Spread to 1M LIBOR	Rate	Spread to 1M LIBOR		
10/26/2016	0.36%	0.65%	0.29%	0.87%	0.51%	0.75%	0.39%	0.93%	0.57%	1.03%	0.67%
11/2/2016	0.36%	1.06%	0.70%			0.76%	0.40%	0.94%	0.58%		
11/9/2016	0.36%	1.06%	0.70%			0.76%	0.40%	0.94%	0.58%		
11/16/2016	0.37%	1.06%	0.69%	Now 2005B-4a		0.76%	0.39%	0.94%	0.57%	Now 2005B-4a	
11/23/2016	0.39%	1.06%	0.66%			0.76%	0.36%	0.94%	0.54%		
11/30/2016	0.41%	1.06%	0.64%			0.76%	0.34%	0.94%	0.52%		

Issue		TBTA 2003B-2	TBTA 2008B-2		
Remarketing Agent		N/A	NA		
Initial Purchase Date		12/3/2019	11/15/2021		
Liquidity/Insurer		None	None		
Par Outstanding (\$m)		46.05	63.65		
Swap Notional (\$m)		1.15	None		
Date	67% of 1M LIBOR	Rate	Spread to 1M LIBOR	Rate	Spread to 1M LIBOR
10/26/2016	0.36%	0.70%	0.34%	0.85%	0.49%
11/2/2016	0.36%	0.71%	0.35%	0.86%	0.50%
11/9/2016	0.36%	0.71%	0.35%	0.86%	0.50%
11/16/2016	0.37%	0.71%	0.34%	0.86%	0.49%
11/23/2016	0.39%	0.71%	0.31%	0.86%	0.46%
11/30/2016	0.41%	0.71%	0.29%	0.86%	0.44%

Report Date 11/30/2016

METROPOLITAN TRANSPORTATION AUTHORITY
VARIABLE RATE: DAILY MODE
RATE RESETS REPORT (Trailing 10 Days)

Transportation Revenue Bonds

Issue		TRB 2005D-2		TRB 2005E-1		TRB 2015E-1		TRB 2015E-5	
Dealer		Morgan Stanley		Jefferies		US Bancorp		US Bancorp	
Liquidity Provider		Helaba		Bank of Montreal		US Bank		US Bank	
Type of Liquidity		LoC		LoC		LoC		LoC	
Par Outstanding (\$m)		100.00		100.00		100.00		50.00	
Swap Notional (\$m)		100.00		60.00		None		None	
Date	SIFMA	Spread to		Spread to		Spread to		Spread to	
		Rate	SIFMA	Rate	SIFMA	Rate	SIFMA	Rate	SIFMA
11/21/2016	0.55%	0.55%	0.00%	0.52%	-0.03%	0.53%	-0.02%	0.53%	-0.02%
11/22/2016	0.55%	0.56%	0.01%	0.55%	0.00%	0.53%	-0.02%	0.53%	-0.02%
11/23/2016	0.55%	0.59%	0.04%	0.56%	0.01%	0.53%	-0.02%	0.53%	-0.02%
11/24/2016	0.55%	0.59%	0.04%	0.56%	0.01%	0.53%	-0.02%	0.53%	-0.02%
11/25/2016	0.55%	0.59%	0.04%	0.56%	0.01%	0.54%	-0.01%	0.54%	-0.01%
11/26/2016	0.55%	0.59%	0.04%	0.56%	0.01%	0.54%	-0.01%	0.54%	-0.01%
11/27/2016	0.55%	0.59%	0.04%	0.56%	0.01%	0.54%	-0.01%	0.54%	-0.01%
11/28/2016	0.55%	0.57%	0.02%	0.56%	0.01%	0.54%	-0.01%	0.54%	-0.01%
11/29/2016	0.55%	0.58%	0.03%	0.56%	0.01%	0.55%	0.00%	0.55%	0.00%
11/30/2016	0.55%	0.60%	0.05%	0.58%	0.03%	0.55%	0.00%	0.55%	0.00%

TBTA General Revenue Bonds

Dedicated Tax Fund Bonds

Issue		TBTA 2002F		TBTA 2003B-3		TBTA 2005B-2		DTF 2008A-1	
Dealer		JP Morgan		US Bancorp		Wells Fargo		RBC Capital	
Liquidity Provider		Helaba		US. Bank		Wells Fargo		RBC	
Type of Liquidity		LoC		LoC		LoC		LoC	
Par Outstanding (\$m)		187.70		52.41		192.20		168.60	
Swap Notional (\$m)		187.70		1.31		192.20		165.51	
Date	SIFMA	Spread to		Spread to		Spread to		Spread to	
		Rate	SIFMA	Rate	SIFMA	Rate	SIFMA	Rate	SIFMA
11/21/2016	0.55%	0.55%	0.00%	0.49%	-0.06%	0.49%	-0.06%	0.53%	-0.02%
11/22/2016	0.55%	0.57%	0.02%	0.49%	-0.06%	0.49%	-0.06%	0.54%	-0.01%
11/23/2016	0.55%	0.57%	0.02%	0.49%	-0.06%	0.49%	-0.06%	0.54%	-0.01%
11/24/2016	0.55%	0.57%	0.02%	0.49%	-0.06%	0.49%	-0.06%	0.54%	-0.01%
11/25/2016	0.55%	0.57%	0.02%	0.49%	-0.06%	0.49%	-0.06%	0.54%	-0.01%
11/26/2016	0.55%	0.57%	0.02%	0.49%	-0.06%	0.49%	-0.06%	0.54%	-0.01%
11/27/2016	0.55%	0.57%	0.02%	0.49%	-0.06%	0.49%	-0.06%	0.54%	-0.01%
11/28/2016	0.55%	0.57%	0.02%	0.49%	-0.06%	0.49%	-0.06%	0.55%	0.00%
11/29/2016	0.55%	0.57%	0.02%	0.51%	-0.04%	0.51%	-0.04%	0.56%	0.01%
11/30/2016	0.55%	0.57%	0.02%	0.51%	-0.04%	0.51%	-0.04%	0.57%	0.02%

Report Date 11/30/2016

MTA DEBT OUTSTANDING (\$ in Millions)

11/30/2016

Type of Credit	Underlying Ratings (Moody's / S&P / Fitch / Kroll)	Series	BPA Sale Date	Series Original Final Maturity	Principal Iss. Amount	Outstanding			Total Outstanding	TIC ¹	Notes
						Fixed Amount	Variable Amount	Synthetic Fixed Amount			
MTA Transportation		2002B	5/28/02	11/1/2022	210.500	-	-	-	-	0.00	
Revenue Bonds (A1/AA-/A/AA+)		2002D	5/29/02	11/1/2032	400.000	174.725	-	200.000	374.725	4.46	
		2002G	11/19/02	11/1/2026	400.000	-	-	155.815	155.815	4.17	
		2003A	5/8/03	11/15/2032	475.340	86.330	-	-	86.330	4.49	
		2003B	7/30/03	11/15/2032	751.765	71.080	-	-	71.080	5.10	
		2005A	2/9/05	11/15/2035	650.000	26.050	-	-	26.050	4.76	
		2005B	6/22/05	11/15/2035	750.000	163.685	-	-	163.685	4.80	
		2005C	10/19/05	11/15/2016	150.000	-	-	-	-	0.00	
		2005D	11/1/05	11/1/2035	250.000	-	-	246.875	246.875	4.31	
		2005E	11/1/05	11/1/2035	250.000	-	98.745	148.105	246.850	3.29	
		2005G	12/7/05	11/1/2026	250.000	216.005	-	-	216.005	4.34	
		2006A	7/13/06	11/15/2035	475.000	-	-	-	-	0.00	
		2006B	12/13/06	11/15/2036	717.730	72.645	-	-	72.645	4.52	
		2007A	6/27/07	11/15/2037	425.615	10.015	-	-	10.015	4.84	
		2007B	12/6/07	11/15/2037	415.000	9.770	-	-	9.770	4.75	
		2008A	2/13/08	11/15/2038	512.470	49.460	-	-	49.460	4.91	
		2008B	2/13/08	11/15/2030	487.530	332.860	-	-	332.860	3.29	
		2008C	10/17/08	11/15/2013	550.000	117.240	-	-	117.240	6.68	
		2009A	10/6/09	11/15/2039	502.320	421.770	-	-	421.770	3.79	
		2010A	1/6/10	11/15/2039	363.945	363.945	-	-	363.945	4.44	
		2010B	2/4/10	11/15/2039	656.975	616.915	-	-	616.915	4.29	
		2010C	6/30/10	11/15/2040	510.485	457.135	-	-	457.135	4.27	
		2010D	11/23/10	11/15/2040	754.305	674.565	-	-	674.565	5.15	
		2010E	12/21/10	11/15/2040	750.000	750.000	-	-	750.000	4.57	
		2011A	7/12/11	11/15/2046	400.440	356.240	-	-	356.240	4.95	
		2011B	9/13/11	11/1/2041	99.560	-	53.005	46.555	99.560	2.07	
		2011C	11/2/11	11/15/2028	197.950	178.060	-	-	178.060	3.99	
		2011D	11/30/11	11/15/2046	480.165	432.005	-	-	432.005	4.57	
		2012A	3/7/12	11/15/2042	150.000	50.000	100.000	-	150.000	1.76	
		2012B	3/7/12	11/15/2039	250.000	225.175	-	-	225.175	3.85	
		2012C	4/18/12	11/15/2047	727.430	695.905	-	-	695.905	4.22	
		2012D	6/28/12	11/15/2032	1,263.365	1,070.790	-	-	1,070.790	3.51	
		2012E	7/13/12	11/15/2042	650.000	601.695	-	-	601.695	3.91	
		2012F	9/20/12	11/15/2030	1,268.445	1,087.070	-	-	1,087.070	3.17	
		2012G	11/7/12	11/1/2032	359.450	-	-	357.500	357.500	4.16	
		2012H	11/9/12	11/15/2042	350.000	324.980	-	-	324.980	3.70	
		2013A	1/17/13	11/15/2043	500.000	468.695	-	-	468.695	3.79	
		2013B	3/22/13	11/15/2043	500.000	467.945	-	-	467.945	4.08	
		2013C	6/11/2013	11/15/2043	500.000	467.845	-	-	467.845	4.25	
		2013D	7/11/2013	11/15/2043	333.790	316.190	-	-	316.190	4.63	
		2013E	11/15/2013	11/15/2043	500.000	475.355	-	-	475.355	4.64	
		2014A	2/28/2014	11/15/2044	400.000	387.295	-	-	387.295	4.31	
		2014B	4/17/2014	11/15/2044	500.000	476.425	-	-	476.425	4.38	
		2014C	6/26/2014	11/15/2036	500.000	477.740	-	-	477.740	3.32	
		2014D	11/4/2014	11/15/2044	500.000	335.000	165.000	-	500.000	3.04	
		2015A	1/28/2015	11/15/2045	850.000	569.560	250.000	-	819.560	2.83	
		2015B	3/19/2015	11/15/2055	275.055	271.055	-	-	271.055	4.29	
		2015C	8/18/2015	11/15/2035	550.000	550.000	-	-	550.000	3.68	
		2015D	9/17/2015	11/15/2035	407.695	407.695	-	-	407.695	3.61	
		2015E	9/10/2015	11/15/2050	650.000	-	640.750	-	640.750	0.90	
		2015B BANS	12/10/2015	2/1/2018	700.000	48.000	-	-	48.000	0.55	
		2015F	12/17/2015	11/15/2036	330.430	330.430	-	-	330.430	3.21	
		2016A	2/25/2016	11/15/2056	782.520	779.420	-	-	779.420	3.54	
		2016A BANS	3/30/2016	2/1/2017	700.000	200.000	-	-	200.000	0.61	
		2016B	6/30/2016	11/15/2037	673.990	673.990	-	-	673.990	2.90	
		2016C	7/28/2016	11/15/2056	863.860	863.860	-	-	863.860	3.52	
	2015X-1 (RRIF LOAN - PTC)	2016D	9/20/2016	11/15/2037	146.472	-	-	-	146.472	2.38	
			10/26/2016	11/15/2035	645.655	645.655	-	-	645.655	2.87	
				Total	29,665.252	18,848.270	1,307.500	1,154.850	21,457.092	3.73	
										WATIC	
TBTA General		EFC 1996A	6/26/96	1/1/2030	28.445	0.630	-	-	0.630	5.85	
Revenue Bonds (Aa3/AA-/AA-/AA)		2001B	12/18/01	1/1/2032	148.200	-	117.805	-	117.805	2.05	
		2001C	12/18/01	1/1/2032	148.200	-	117.800	-	117.800	1.77	
		2002F	11/8/02	11/1/2032	246.480	-	-	179.785	179.785	3.57	
		2003B	12/9/03	1/1/2033	250.000	-	175.860	4.505	180.365	1.82	
		2005A	5/10/05	11/1/2035	150.000	-	91.545	23.230	114.775	2.37	
		2005B	7/6/05	1/1/2032	800.000	-	-	575.700	575.700	3.73	
		2006A	6/8/06	11/15/2035	200.000	-	-	-	-	0.00	

MTA DEBT OUTSTANDING (\$ in Millions)

11/30/2016

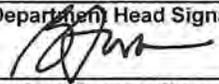
Type of Credit	Underlying Ratings (Moody's /S&P / Fitch/ Krull)	Series	BPA Sale Date	Series Original Final Maturity	Principal Iss. Amount	Outstanding			Total Outstanding	TIC ¹	Notes
						Fixed Amount	Variable Amount	Synthetic Fixed Amount			
		2007A	6/13/07	11/15/2037	223.355	43.245	-	-	43.245	4.84	
		2008A	3/13/08	11/15/2038	822.770	576.290	-	-	576.290	4.93	
		2008B	3/13/08	11/15/2038	252.230	142.715	63.650	-	206.365	3.48	
		2008C	7/16/08	11/15/2038	629.890	448.005	-	-	448.005	4.72	
		2009A	2/11/09	11/15/2038	475.000	380.445	-	-	380.445	4.81	
		2009B	9/10/09	11/15/2039	200.000	200.000	-	-	200.000	3.63	
		2010A	10/20/10	11/15/2040	346.960	310.575	-	-	310.575	3.45	
		2011A	10/4/11	1/1/2028	609.430	517.320	-	-	517.320	3.59	
		2012A	6/6/12	11/15/2042	231.490	200.875	-	-	200.875	3.69	
		2012B	8/3/12	11/15/2032	1,236.898	1,269.560	-	-	1,269.560	2.66	
		2013B	1/29/13	11/15/2030	257.195	257.195	-	-	257.195	2.25	
		2013C	4/18/2013	11/15/2043	200.000	184.620	-	-	184.620	3.71	
		2014A	2/6/2014	11/15/2044	250.000	235.225	-	-	235.225	4.28	
		2015A	5/15/2015	11/15/2050	225.000	219.250	-	-	219.250	4.18	
		2015B	11/16/2015	11/15/2045	65.000	63.875	-	-	63.875	3.88	
		2016A	1/28/2016	11/15/2046	541.240	533.710	-	-	533.710	3.24	
				Total	8,537.783	5,583.535	566.660	783.220	6,933.415	3.53	
											WATIC
TBTA Subordinate		2000ABCD	11/01/00	1/1/2019	263.000	-	38.500	55.800	94.300	4.54	
Revenue Bonds		2002E	10/23/02	11/15/2032	756.095	139.825	-	-	139.825	5.34	
(A1/A+/A+/AA-)		2003A	2/27/03	11/15/2032	500.170	-	-	-	-	0.00	
		2008D	7/16/08	11/15/2028	491.110	332.375	-	-	332.375	4.69	
		2013A	1/11/2013	11/15/2032	761.600	750.700	-	-	750.700	3.13	
		2013D Taxable	12/19/2013	11/15/2032	313.975	162.025	148.470	-	310.495	2.45	
				Total	3,085.950	1,384.925	186.970	55.800	1,627.695	3.59	
											WATIC
MTA Dedicated		2002B	9/4/02	11/1/2022	440.000	-	311.800	-	311.800	2.07	
Tax Fund Bonds		2004A	2/26/04	11/15/2018	250.000	46.000	-	-	46.000	3.49	
(NAF/AA/AA/NAF)		2004B	3/9/04	11/15/2028	500.000	281.480	-	-	281.480	4.51	
		2004C	12/15/04	11/15/2018	120.000	18.365	-	-	18.365	3.77	
		2006A	6/7/06	11/15/2035	350.000	-	-	-	-	0.00	
		2006B	10/25/06	11/15/2036	410.000	-	-	-	-	0.00	
		2008A	6/24/08	11/1/2031	352.915	-	5.885	328.980	334.865	4.13	
		2008B	8/6/08	11/1/2034	348.175	237.825	79.740	-	317.565	2.70	
		2009A	3/12/09	11/15/2039	261.700	5.375	-	-	5.375	5.55	
		2009B	4/23/09	11/15/2030	500.000	282.205	-	-	282.205	5.00	
		2009C	4/23/09	11/15/2039	750.000	750.000	-	-	750.000	4.89	
		2010A	3/17/10	11/15/2040	502.990	452.810	-	-	452.810	3.91	
		2011A	3/23/11	11/15/2021	127.450	58.455	-	-	58.455	2.99	
		2012A	10/16/12	11/15/2032	1,065.335	986.005	-	-	986.005	3.07	
		2016A	3/10/15	11/15/2036	579.995	577.695	-	-	577.695	2.98	
		2016B	5/26/16	11/15/2056	588.305	586.550	-	-	586.550	3.37	
		2016A BANS	6/28/16	6/1/2017	700.000	700.000	-	-	700.000	0.63	
				Total	7,846.865	4,982.765	397.425	328.980	5,709.170	3.26	
											WATIC
		All MTA Total			49,493.775	30,799.495	2,458.555	2,322.850	35,727.372	3.61	
State Service Contract Bonds		2002A	6/5/02	7/1/2031	1,715.755	132.360	-	-	132.360	5.29	
(AA/AA)		2002B	6/26/02	7/1/2031	679.450	12.605	-	-	12.605	4.93	
				Total	2,395.205	144.965	-	-	144.965	5.26	
											WATIC
MTA Special Obligation Bonds		2014	6/5/02	7/1/2031	348.910	308.650	-	-	308.650	2.66	
Aaa					348.910	308.650	-	-	308.650	2.66	
											WATIC
MTA Hudson Rail Yards Trust Obligations²		2016A	9/22/16	11/15/2056	1,057.430	1,057.430	-	-	1,057.430	4.28	
(A2/NAF/NAF/A-)					1,057.430	1,057.430	-	-	1,057.430	4.28	
											WATIC
		Grand Total			53,295.320	32,310.540	2,458.555	2,322.850	37,238.417	3.63	

Notes

- (1) Fixed Rate TICs calculated as of issuance of Fixed Rate Bonds. Floating Rate TICs calculated from inception including fees. Any Unhedged Variable Rate Bonds that have been fixed to maturity are carried at the new Fixed Rate TIC. Synthetic Fixed Rate TICs include average swap rates plus current variable rate fees and estimated basis adjustments for life of swap. Synthetic Fixed Rate TICs do not include benefit of any upfront payments received by MTA. Variable Rate TICs include average remarketed plus current variable rate fees.
- (2) Assumes that no fee purchase options are exercised thru maturity. If all of the fee purchase options are exercised within 10 years, the All-in TIC would be 2.74%.

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Staff Summary

Subject MTA and TBTA Reimbursement for Federal Tax purposes	Date December 14, 2016
Department Chief Financial Officer	Vendor Name
Department Head Name Robert E. Foran, Chief Financial Officer	Contract Number
Department Head Signature 	Contract Manager Name
Project Manager Name Josiane Codio, Director of Treasury 	Table of Contents Ref #

Board Action						Internal Approvals			
Order	To	Date	Approval	Info	Other	Order	Approval	Order	Approval
	Finance Comm.	12/12	X			1	Legal 	2	Chief of Staff 
	Board	12/14	X						

To obtain MTA and TBTA adoption of the annexed reimbursement resolutions, which are required by Federal tax law to preserve the ability to finance certain capital projects on a tax-exempt basis.

PURPOSE:

As it has in the past, the Metropolitan Transportation Authority (the “MTA”) intends to finance the MTA’s transit and commuter capital improvement program, including MTA Bus Company and Staten Island Rapid Transit Operating Authority, and Triborough Bridge and Tunnel Authority (“TBTA” or “MTA Bridges and Tunnels”) intends to finance the MTA Bridges and Tunnels’ bridge and tunnel capital improvement program.

It is important that MTA and MTA Bridges and Tunnels preserve the ability to finance capital projects in these capital improvement programs on a tax-exempt or tax-advantaged basis. To maintain the ability of MTA and MTA Bridges and Tunnels to finance capital projects in the capital improvement programs on such tax-exempt or tax-advantaged basis, consistent with Federal tax law, the MTA and TBTA Boards periodically adopt reimbursement resolutions. Federal tax law requires that official action that sets forth the issuer’s intent to spend tax-exempt bond proceeds on a project must be taken by an issuer that wants to reimburse itself from tax-exempt bond proceeds for capital project costs that were funded from another source of revenue. Copies of the 2017 reimbursement resolutions submitted for Board adoption are attached hereto.

For purposes of the attached reimbursement resolutions, (i) in the case of MTA, the Project refers to the capital programs approved by the Metropolitan Transportation Authority Capital Program Review Board (CPRB), including, particularly, the 2000-2004 Transit and Commuter Capital Program, the 2005-2009 Transit and Commuter Capital Program, the 2010-2014 Transit and Commuter Capital Program, and the 2015-2019 Transit and Commuter Capital Program, and (ii) in the case of TBTA, the Project refers to the capital programs approved by the TBTA Board, including, particularly, the 2000-2004 TBTA Capital Program, the 2005-2009 TBTA Capital Program, the 2010-2014 TBTA Capital Program, the 2015-2019 TBTA Capital Program, and the security projects authorized to be constructed and/or installed at the TBTA bridges and tunnels.

ALTERNATIVES:

There is no alternative to preserve the ability to finance certain capital projects on a tax-exempt or tax-advantaged basis under Federal tax law.

RECOMMENDATION:

The MTA and TBTA Boards approve the above-referenced resolutions. This authorization shall continue in effect until the adoption in 2017 by the MTA and TBTA Boards of subsequent reimbursement resolutions.

RESOLUTION

WHEREAS, Metropolitan Transportation Authority (“MTA”) intends to finance the MTA’s transit and commuter capital improvement program, including MTA Bus Company and Staten Island Rapid Transit Operating Authority, as more fully described in the accompanying staff summary and capital program documents referenced therein (the “MTA Project”);

WHEREAS, MTA desires to finance the MTA Project through the issuance of tax-exempt debt or tax-advantaged debt, if available, and other sources as described in the approved capital programs, and expects to reimburse expenditures made from other sources with proceeds of such tax-exempt or tax-advantaged debt;

NOW THEREFORE, BE IT:

RESOLVED, that the statements contained in this Resolution with respect to the reimbursement of the expenditures described in this resolution are intended to be statements of official intent as required by, and in conformance with, the provisions of Treasury Regulation Section 1.150-2(e); and

RESOLVED, that the expenditures in connection with the MTA Project to be reimbursed pursuant to this Resolution have been incurred and paid not more than 60 days prior to the date hereof or will be incurred and paid after the date hereof in connection with the MTA Project; and

RESOLVED, that the MTA reasonably expects that the maximum principal amount of tax-exempt or tax-advantaged debt (including bonds, commercial paper and bond anticipation notes) to be issued by MTA subsequent to the date hereof to pay MTA Project expenditures in 2017 (whether directly or as a reimbursement) is \$2,300 million (plus associated financing costs); and

RESOLVED, that this Resolution shall take effect immediately.

December 14, 2016

RESOLUTION

WHEREAS, Triborough Bridge and Tunnel Authority (“MTA Bridges and Tunnels”) intends to finance the MTA Bridges and Tunnels’ bridge and tunnel capital improvement program, as more fully described in the accompanying staff summary and capital program documents referenced therein (the “Project”);

WHEREAS, MTA Bridges and Tunnels desires to finance the Project through the issuance of tax-exempt debt or tax-advantaged debt, if available, and other sources as described in the approved capital programs, and expects to reimburse expenditures made from other sources with proceeds of such tax-exempt or tax-advantaged debt;

NOW THEREFORE, BE IT:

RESOLVED, that the statements contained in this Resolution with respect to the reimbursement of the expenditures described in this resolution are intended to be statements of official intent as required by, and in conformance with, the provisions of Treasury Regulation Section 1.150-2(e); and

RESOLVED, that the expenditures in connection with the Project to be reimbursed pursuant to this Resolution have been incurred and paid not more than 60 days prior to the date hereof or will be incurred and paid after the date hereof in connection with the Project; and

RESOLVED, that MTA Bridges and Tunnels reasonably expects that the maximum principal amount of tax-exempt or tax-advantaged debt (including bonds, commercial paper and bond anticipation notes) to be issued by MTA Bridges and Tunnels subsequent to the date hereof to pay MTA Bridges and Tunnels Project expenditures in 2017 (whether directly or as a reimbursement) is \$300 million (plus associated financing costs); and

RESOLVED, that this Resolution shall take effect immediately.

December 14, 2016

Staff Summary

Subject Authorization to Issue New Money Transportation Revenue Bond Anticipation Notes, Transportation Revenue Bonds, and Triborough Bridge and Tunnel Authority General Revenue and Subordinate Revenue Bonds
Department Finance
Department Head Name Robert E. Foran, Chief Financial Officer
Department Head Signature 
Project Manager Name Patrick J. McCoy, Director, Finance 

Date December 14, 2016
Vendor Name
Contract Number
Contract Manager Name
Table of Contents Ref #

Board Action					
Order	To	Date	Approval	Info	Other
1	Finance Comm.	12/12	X		
2	Board	12/14	X		

Internal Approvals			
Order	Approval	Order	Approval
1	Legal 	2	Chief of Staff 

PURPOSE:

The MTA Finance Department is seeking MTA and TBTA Board authorization and approval of the necessary documentation to issue new money bond anticipation notes (BANs) and bonds to finance up to \$2,300 million of capital projects set forth in approved transit and commuter capital programs, and to issue up to \$300 million of new money bonds to finance capital projects set forth in approved bridges and tunnels capital programs. The MTA Finance Department will report to the Board on the status of the proposed debt issuance schedule, the results of each note and bond issue and planned note and bond issues.

DISCUSSION:

MTA and TBTA Board approval is sought for the following resolutions, documents and activities in connection with the issuance of bonds and/or bond anticipation notes in an aggregate principal amount necessary to finance up to \$2.6 billion of capital projects of the transit and commuter systems and MTA Bridges & Tunnels set forth in approved capital programs:

- Separate Supplemental Resolutions authorizing Transportation Revenue Bonds (TRB Bonds) and Transportation Revenue BANs (TRB BANs), including providing for the following:
 - o The issuance of TRB BANs and TRB Bonds under the General Resolution Authorizing Transportation Revenue Obligations (the TRB Resolution), in one or more series from time to time, in an amount sufficient to produce net proceeds of up to \$2,300 million necessary to finance transit or commuter capital programs, plus applicable issuance costs and any original issue discount,
 - o Issuance of such TRB BANs or TRB Bonds in competitive or negotiated public sales, by direct placement or in connection with a revolving credit or other loan agreement, and
 - o The issuance of TRB Bonds under the TRB Resolution in an amount sufficient to (i) retire the TRB BANs when due and (ii) to finance transit or commuter capital programs, in each case plus accrued interest and applicable issuance costs and any original issue discount.
- Multiple Series 2017 Supplemental Resolution authorizing Triborough Bridge and Tunnel Authority General Revenue Obligations, including providing for the issuance of the following:

- o An aggregate principal amount of up to \$300 million of Triborough Bridge and Tunnel Authority General Revenue Obligations (reduced by any bonds issued under the Triborough Bridge and Tunnel Authority Subordinate Resolution) in one or more series necessary to finance capital projects of TBTA as set forth in existing MTA Bridges & Tunnels capital programs, plus applicable issuance costs and any original issue discount, and
- o Parity Reimbursement Obligations and other Parity Debt in an amount sufficient to secure any Credit Facilities entered into in connection with the issuance of the General Revenue Obligations.
- Multiple Series 2001 Subordinate Revenue Bond Supplemental Resolution authorizing Triborough Bridge and Tunnel Authority Subordinate Revenue Obligations, including providing for the issuance of the following:
 - o An aggregate principal amount of up to \$300 million of Triborough Bridge and Tunnel Authority Subordinate Revenue Obligations (reduced by any bonds issued under the Triborough Bridge and Tunnel Authority General Revenue Bond Resolution) in one or more series necessary to finance capital projects of TBTA, as set forth in existing MTA Bridges & Tunnels capital programs plus applicable issuance costs and any original issue discount, and
 - o Parity Reimbursement Obligations and other Parity Debt in an amount sufficient to secure any Credit Facilities entered into in connection with the issuance of the Subordinate Revenue Obligations.

With respect to the above-referenced financial transactions, MTA and TBTA Board approval, as applicable, is sought:

(a) delegating authority to the Chairman and Chief Executive Officer, the Chair of the Finance Committee, the Vice Chairman, the Chief Financial Officer or the Director, Finance to award the obligations either pursuant to competitive bid or to members (or entities related to such firms) of the Board-approved MTA underwriting syndicate and to execute and/or deliver in each case, where appropriate:

- o Notices of Sale and bid forms,
- o Purchase Agreements with underwriters,
- o Direct Purchase Agreements,
- o Revolving Credit Agreements or other Loan Agreements,
- o Official Statements and other disclosure documents,
- o Continuing Disclosure Agreements and related filings,
- o Remarketing Agreements,
- o Dealer and Broker/Dealer Agreements,
- o Issuing and Paying Agent Agreements,
- o Credit Facilities and related Parity Reimbursement Obligations and Parity Debt,
- o Related Subordinated Contract Obligations, and
- o Investment Agreements.

Any such documents will be in substantially the form of any document previously entered into by MTA or TBTA for previous issues, with such changes as approved by any one or more of the foregoing officers.

(b) authorizing such officers to terminate, amend, supplement, replace or extend any such documents, including Credit Facilities (and related Parity Reimbursement Obligations and Parity Debt), as they shall deem advisable, and to take such other actions as may be necessary or desirable to effectuate the issuance of the new money bonds and other financial transactions set forth above, on behalf of MTA, TBTA or other MTA subsidiaries and affiliates.

ALTERNATIVES:

There are no viable funding alternatives to the bond funded portion of existing capital programs.

RECOMMENDATION:

The MTA and TBTA Boards approve the above-referenced resolutions and documents and all other actions described above, including the execution and delivery of such other documents, and the taking of all other actions, from time to time deemed necessary or desirable by such officers in connection therewith. The authorization to issue the bonds and take other related actions hereunder shall continue in effect without any further action by the MTA and TBTA Boards until the adoption by the MTA and TBTA Boards of subsequent bond supplemental resolutions relating to 2018 note and bond issues (except that bonds may still be issued to refinance 2017 BANs outstanding at any time) unless (a) the MTA and TBTA Boards shall have confirmed

Staff Summary



the effectiveness of this authorization for an additional period, or (b) the MTA and TBTA Boards shall have modified or repealed this authorization.

METROPOLITAN TRANSPORTATION AUTHORITY

**MULTIPLE SERIES 2017 BOND ANTICIPATION NOTES
AND RELATED SUBORDINATED INDEBTEDNESS
TRANSPORTATION REVENUE BOND SUPPLEMENTAL RESOLUTION**

Adopted December 14, 2016

**MULTIPLE SERIES 2017 BOND ANTICIPATION NOTES AND
RELATED SUBORDINATED INDEBTEDNESS
TRANSPORTATION REVENUE BOND SUPPLEMENTAL RESOLUTION**

BE IT RESOLVED by the Board of Metropolitan Transportation Authority (the “Issuer”), as follows:

**ARTICLE I
DEFINITIONS AND STATUTORY AUTHORITY**

SECTION 1.01. Supplemental Resolution. This resolution is supplemental to, and is adopted in accordance with Article II, Article A-II and Article A-VIII of, a resolution adopted by the Issuer on March 26, 2002, entitled “General Resolution Authorizing Transportation Revenue Obligations”, as heretofore supplemented (the “Resolution”).

SECTION 1.02. Definitions.

1. All terms which are defined in Section 101 of the Resolution shall have the same meanings, respectively, in this Multiple Series 2017 Bond Anticipation Notes and Related Subordinated Indebtedness Transportation Revenue Bond Supplemental Resolution (hereinafter referred to as the “Supplemental Resolution”) as such terms are given in said Section 101 of the Resolution.

2. In this Supplemental Resolution:

“Authorized Officer” shall include the officers designated as such in the Resolution, and the Chairman and Chief Executive Officer, the Vice Chairman, the Chair of the Finance Committee, the Chief Financial Officer or the Director, Finance of the MTA, as well as any officer duly designated as “Acting” in said officer’s capacity, except that, for the purposes of any delegation set forth herein that does not expressly include any Assistant Secretary, “Authorized Officer” shall not include any Assistant Secretary of the Issuer.

“Board” shall mean, when used with respect to the Issuer, the board of the Issuer acting as such pursuant to the provisions of the Issuer Act.

“Bond Counsel” shall mean Nixon Peabody LLP, Orrick, Herrington & Sutcliffe LLP, D. Seaton and Associates, P.A., P.C., Bryant Rabbino LLP or any other attorney or firm of attorneys of nationally recognized standing in the field of law relating to the issuance of obligations by state and municipal entities, selected by the Issuer.

“Code” shall mean the Internal Revenue Code of 1986, as amended, and regulations thereunder.

“Noteholder”, “Holder” or “Holder of Notes”, or any similar term, means any person who shall be the registered owner of any Outstanding Series 2017 Note or Notes.

“Notice of Sale” shall mean the form of Notice of Sale to be distributed with the Preliminary Official Statement, hereinafter defined, and published in the event of a competitive sale of the Series 2017 Notes.

“Series 2017 Bonds” shall mean the Transportation Revenue Bonds, Series 2017, authorized by Article II of the Resolution and pursuant to a resolution of the Issuer adopted as of the date that this resolution is adopted.

“Series 2017 Notes” shall mean the Transportation Revenue Bond Anticipation Notes, Series 2017, authorized to be issued, in accordance with Section A-203 of the Standard Resolution Provisions, pursuant to this Supplemental Resolution.

SECTION 1.03. Authority for this Supplemental Resolution. This Supplemental Resolution is adopted pursuant to the provisions of the Issuer Act and the Resolution.

ARTICLE II AUTHORIZATION OF SERIES 2017 NOTES

SECTION 2.01. Principal Amount, Designation and Series. In accordance with the provisions of the Resolution, one or more Series of Transportation Revenue Bond Anticipation Notes constituting Obligation Anticipation Notes under the Resolution (which may be issued in one or more Series or subseries and from time to time, which for purposes of this Supplemental Resolution shall collectively be referred to herein as the “Series 2017 Notes”, subject to redesignation as hereinafter provided) and entitled to the benefit, protection and security of this Supplemental Resolution are hereby authorized to be issued in an aggregate principal amount not exceeding the principal amount necessary so that, after giving effect to any net original issue discount and underwriters’ discount from the principal amount, the amount to be deposited in the Series 2017 Note Proceeds Account pursuant to, or otherwise applied to effectuate the purposes of, Section 2.02 and Section 3.01 of this Supplemental Resolution (exclusive of the amount so deposited therein determined in any Certificate of Determination as estimated to be necessary to pay capitalized interest or to pay any Costs of Issuance of the Series 2017 Notes), shall not exceed \$2,300 million at any one time Outstanding reduced by the amount of bonds issued under the Metropolitan Transportation Authority Multiple Series 2017 Transportation Revenue Bond Supplemental Resolution, adopted December 14, 2016 (but, for purposes of clarification, not including both the Series 2017 Notes and Series 2017 Bonds issued thereunder to refinance Series 2017 Notes). The Series 2017 Notes may be issued in the form of a loan agreement, line of credit, revolving credit agreement or similar facility (each, a “Loan Facility”). For all purposes of this Section such Transportation Revenue Bond Anticipation Notes shall be designated as, and shall be distinguished from the Transportation Revenue Bond Anticipation Notes of all other Series by the title, “Transportation Revenue Bond Anticipation Notes, Series 2017”, with such further or different designations as may be provided in any Certificate of Determination.

The authority to issue Obligation Anticipation Notes and take related actions granted under previous resolutions of the Issuer shall continue in full force and effect. The authorization to issue the Series 2017 Notes shall continue in effect until the adoption by the Issuer’s Board of a subsequent new money note issuance supplemental resolution relating to 2018 new money

financings, provided, however, the authorization to issue the Series 2017 Bonds to refinance the Series 2017 Notes authorized hereunder shall continue in effect until all of such Series 2017 Notes have been refinanced by Series 2017 Bonds.

SECTION 2.02. Use of Proceeds. The proceeds of the Series 2017 Notes shall be used only for the purposes set forth in one or more Certificates of Determination and may include (i) the payment of all or any part of the Capital Costs, including Costs of Issuance related to the Series 2017 Notes and (ii) the payment of the principal and interest of Outstanding Series 2017 Notes.

SECTION 2.03. Date, Maturity and Interest for Series 2017 Notes; Redemption. The Series 2017 Notes shall be dated the date or dates determined in any Certificate of Determination. The Series 2017 Notes shall mature on the date or dates and in the principal amount or amounts, and shall bear interest at the rate or rates per annum, if any, determined in any Certificate of Determination. Except as otherwise provided in any Certificate of Determination, the Series 2017 Notes shall not be subject to redemption prior to maturity.

SECTION 2.04. Interest Payments. The Series 2017 Notes shall bear interest from the dates determined in any Certificate of Determination, payable on such date or dates as may be determined pursuant to any Certificate of Determination. Except as otherwise provided in any Certificate of Determination, interest on the Series 2017 Notes shall be computed on the basis of twelve 30-day months and a 360-day year.

SECTION 2.05. Denominations, Numbers and Letters. Unless otherwise provided in any Certificate of Determination, the Series 2017 Notes shall be issuable in fully registered form in the denomination of \$5,000 or any integral multiple thereof. The Series 2017 Notes shall be numbered and lettered as provided in any Certificate of Determination.

SECTION 2.06. Places of Payment and Paying Agents. Except as otherwise provided in any Certificate of Determination, the principal and Redemption Price of the Series 2017 Notes shall be payable to the registered owner of each Series 2017 Note when due upon presentation of such Series 2017 Note at the principal corporate trust office of the Trustee. Except as otherwise provided in any Certificate of Determination, interest on the registered Series 2017 Notes will be paid by check or draft mailed on the interest payment date by Paying Agent to the registered owner at his address as it appears on the registration records or, at the option of any Holder of at least one million dollars (\$1,000,000) in principal amount of the Series 2017 Notes, by wire transfer in immediately available funds on each interest payment date to such Holder thereof upon written notice from such Holder to the Trustee, at such address as the Trustee may from time to time notify such Holder, containing the wire transfer address (which shall be in the continental United States) to which such Holder wishes to have such wire directed, if such written notice is received not less than twenty (20) days prior to the related interest payment date (such notice may refer to multiple interest payments).

SECTION 2.07. Sources of Payment

1. The principal of and interest on the Series 2017 Notes shall be payable solely from (i) the proceeds of any other Series 2017 Notes, (ii) the proceeds of the Series 2017 Bonds, and (iii) the proceeds of notes or other evidences of indebtedness or any other amounts, in each case if and to the extent such amounts may lawfully be used to make such payments. The interest on the Series 2017 Notes is also payable from amounts available for transfer pursuant to Section 504(b) and Section 505.3 of the Resolution for the payment of Subordinated Indebtedness.

2. There are hereby pledged to the payment of principal and interest on the Series 2017 Notes the proceeds of the Series 2017 Bonds issued to refinance such Series 2017 Notes, and such pledge has priority over any other pledge thereof created by the Resolution, including Section 501. There is hereby pledged to the payment of interest on the Series 2017 Notes amounts available for transfer pursuant to Section 504(b) and Section 505.3 of the Resolution for the payment of Subordinated Indebtedness in accordance with and subject to the limitations contained in Section 506 of the Resolution.

SECTION 2.08. Delegation to an Authorized Officer.

1. There is hereby delegated to each Authorized Officer, subject to the limitations contained in this Supplemental Resolution, the following powers with respect to the Series 2017 Notes:

(a) to determine whether and when to issue any Series 2017 Notes, the amount of the Series 2017 Notes to be applied to pay Capital Costs or other uses as provided in Section 2.02 of this Supplemental Resolution and the amount of the proceeds of the Series 2017 Notes estimated to be necessary to pay the Costs of Issuance of the Series 2017 Notes;

(b) to determine the purposes or purposes for which the Series 2017 Notes are being issued, which shall be one or more of the purposes set forth in Section 2.02 of this Supplemental Resolution;

(c) to determine the principal amount of the Series 2017 Notes to be issued, which principal amount shall not exceed the amount described in Section 2.01 of this Supplemental Resolution, and whether such Series 2017 Notes shall be issued in one or more Series or subseries;

(d) to determine the maturity date and principal amount of each maturity of the Series 2017 Notes; provided that the Series 2017 Notes shall mature no later than five years after the date of issuance of such Series 2017 Notes;

(e) to determine the date or dates which the Series 2017 Notes shall be dated and the interest rate or rates of the Series 2017 Notes, provided that the true interest cost (as calculated by the officers of the Issuer executing any Certificate of Determination, which calculation shall be conclusive) on the Series 2017 Notes bearing a fixed rate of interest shall not exceed 4.00% per annum and for Series 2017 notes bearing interest at a variable interest rate shall not exceed a rate equal to SIFMA or one-month or three-month LIBOR or any short-term index generally accepted in the marketplace, in each case, plus

4.00% and any default rate or equivalent rate shall not exceed the sum of 4.00% plus either a specified prime rate or the federal funds rate;

(f) to determine the Redemption Price or Redemption Prices, if any, and the redemption terms, if any, for the Series 2017 Notes; provided, however, that if the Series 2017 Notes are to be redeemable at the election of the Issuer, the Redemption Price (except in the case of taxable Series 2017 Notes) shall not be greater than one hundred three percent (103%) of the principal amount of the Series 2017 Notes to be redeemed, plus accrued interest thereon up to but not including the date of redemption and in the case of taxable Series 2017 Notes the Redemption Price may be determined pursuant to provisions relating to pro rata redemption and/or make-whole redemption;

(g) to determine the advisability of conducting the sale of all or any portion of the Series 2017 Notes through competitive bidding or through a negotiated sale or a direct purchase transaction, and to determine the purchase price for the Series 2017 Notes to be paid by the purchasers pursuant to either a competitive bid process or by the purchasers referred to in the Purchase Agreement described in Section 2.09 of this Supplemental Resolution in the event the Series 2017 Notes are sold, in such officer's discretion, through a negotiated sale or a direct purchase transaction, which may include such original premium and original issue discount as shall be determined in any Certificate of Determination, provided, however, that in the case of a negotiated transaction, underwriters' discount reflected in such purchase price shall not exceed \$3.50 for each one thousand dollars (\$1,000) principal amount of the Series 2017 Notes;

(h) to determine the advisability, as compared to an unenhanced transaction, of obtaining municipal bond insurance or any other credit or liquidity facility, to determine and accept the terms and provisions and price thereof, to determine the items to be pledged to the Series 2017 Notes from those permitted by Section A-203 of the Resolution, and to determine such other matters as the officer executing any Certificate of Determination shall consider necessary or appropriate and to effect such determinations by making any changes in or additions to this Supplemental Resolution required by bond insurers or the provider of any other credit or liquidity facility, if any, or required by the bond rating agencies in order to attain or maintain specific ratings on the Series 2017 Notes, or relating to the mechanism for the payment of insurance premium, credit or liquidity facility fees or direct purchase fees, notices, the provision of information, and such other matters of a technical, mechanical, procedural or descriptive nature necessary or appropriate to implement an insurance policy or any other credit or liquidity facility with respect to the Series 2017 Notes, and to make any changes in connection therewith. Such changes may include, but are not limited to, the making of any additional covenants with Holders or other parties deemed necessary or appropriate by the officer executing any Certificate of Determination;

(i) to take all actions required for the Series 2017 Notes to be eligible under the rules and regulations of The Depository Trust Company ("DTC") for investment and trading as uncertificated securities, to execute and deliver a standard form letter of representation with, or other form of document required by, DTC and, notwithstanding any provisions to the contrary contained in this Supplemental Resolution, to include in

any Certificate of Determination such terms and provisions as may be appropriate or necessary to provide for uncertificated securities in lieu of Notes issuable in fully registered form; and

(j) to determine whether to issue all or any part of the Series 2017 Notes as Tax-Exempt Obligations or Taxable Obligations;

(k) to make such changes in or from the form of this Supplemental Resolution as may be required by a Rating Agency in order to attain or maintain specific ratings on the Series 2017 Notes;

(l) to make such changes in or from the form of this Supplemental Resolution as may be necessary or desirable in order to cure any ambiguities, inconsistencies or other defects; and

(m) to determine any other matters provided for herein, including the matters set forth in Sections 2.11 and 2.12 hereof.

2. Any Authorized Officer shall execute one or more Certificates of Determination evidencing the determinations made pursuant to this Supplemental Resolution and any such Certificate of Determination shall be conclusive evidence of the determinations of such Authorized Officer, as stated therein. More than one Certificate of Determination may be delivered to the extent more than one Series or subseries of Series 2017 Notes are delivered from time to time, or other authority is exercised under this Supplemental Resolution from time to time and each such Certificate of Determination shall be delivered to the Trustee prior to the authentication and delivery of the respective Series or subseries of Series 2017 Notes by the Trustee or other documentation. Determinations set forth in any Certificate of Determination shall have the same effect as if set forth in this Supplemental Resolution. Any such Authorized Officer may exercise any authority delegated under this Supplemental Resolution from time to time following issuance of any Series 2017 Notes, as appropriate for any purposes, including, if any Series 2017 Notes shall consist of multiple subseries, to change the principal amounts and number of the individual subseries or to combine all subseries into a single Series, if any Series 2017 Notes consist of a single Series, to divide such Series into two or more subseries and to determine the principal amount of such subseries, obtain a substitute or additional Credit Facility, or to appoint new or additional agents or other parties deemed appropriate to a particular form or mode of Obligation or manner of sale.

SECTION 2.09. Sale of Series 2017 Notes. Each Authorized Officer is hereby authorized either (i) to sell and award all or any portion of the Series 2017 Notes through a competitive bidding process to purchasers meeting the requirements of one or more Notices of Sale (as hereinafter defined) to be published in order to give notice of the competitive sale of the Series 2017 Notes; (ii) to sell and award all or any portion of the Series 2017 Notes through a negotiated sale to the purchasers who are referred to in the note purchase agreement and who shall be selected from the then current list of approved underwriters; (iii) to sell and award all or any portion of the Series 2017 Notes through a direct sale to the financial institution or institutions selected by the Authorized Officer who shall be referred to in the continuing covenant, direct purchase or similar agreement; or (iv) to issue all or any portion of the Series 2017 Notes in the form of a Loan Facility to any financial institution or institutions selected by the Authorized Officer. Each Authorized Officer is hereby authorized to sell and award the Series 2017 Notes to the purchasers referred to in the preceding sentence in the case of a note purchase agreement, in substantially the form most recently executed or delivered by the Issuer in connection with the sale of Obligations, or, with respect to a Loan Facility or a continuing covenant, direct purchase or similar agreement, containing bank facility terms and provisions (including, without limitation, increased costs, term-out, events of default and remedies) in substantially the form set forth in a letter of credit reimbursement agreement most recently executed or delivered by the Issuer, including, if applicable, that the requirement that the Loan Facility issuer or direct purchaser offer to the Issuer a term-out provision of no less than five years, with such revisions to reflect the terms and provisions of the Series 2017 Notes as may be approved by the officer executing the note purchase, Loan Facility, continuing covenant or similar agreement (each, a “Purchase Agreement”). Each Authorized Officer is hereby authorized to agree to the selection of the representative of the underwriters or the other purchasers or facility providers as referred to in the Purchase Agreement or Agreements and to execute and deliver the Purchase Agreement or Agreements for and on behalf and in the name of the Issuer with such changes, omissions, insertions and revisions as may be approved by the officer executing the Purchase Agreement or Agreements, said execution being conclusive evidence of such approval and concurrence in the selection of the representative of the underwriters.

If it is determined that any sale of Series 2017 Notes shall be conducted on a competitive bid basis, each Authorized Officer is hereby further authorized to conduct the sale and award of the Series 2017 Notes on the basis of a competitive bid, pursuant to the terms of a notice of sale, including bid form (the “Notice of Sale”), in a form, including any limitations on permitted bidders and a description of the basis for determining the winning bidder or bidders, determined by such Authorized Officer. Each Authorized Officer is hereby authorized to conduct such competitive sale of the Series 2017 Notes in a manner consistent with this Supplemental Resolution and to utilize the services of the Authority’s financial advisor and the services of an electronic bidding service, as such Authorized Officer shall determine, and the execution by such Authorized Officer of a letter of award shall be conclusive evidence of such award.

Each Authorized Officer is hereby authorized, to the extent required, to make public and to authorize the use and distribution by said purchasers of a Preliminary Official Statement (the “Preliminary Official Statement”), in connection with the public offering of the Series 2017 Notes, in substantially the form most recently executed or delivered by the Issuer in connection with the sale of Obligations of the Issuer, with such changes, omissions, insertions and revisions

as such Authorized Officer shall deem advisable, said distribution being conclusive evidence of the approval of such changes, omissions, insertions and revisions. The Issuer authorizes any of said officers to deliver a certification to the effect that the Preliminary Official Statement, together with such other documents, if any, described in such certificate, was deemed final as of its date for purposes of Rule 15c2-12 of the Securities and Exchange Commission.

Each Authorized Officer is hereby authorized, to the extent required, to make public and to authorize distribution of a final Official Statement in substantially the form of the Preliminary Official Statement or the most recently executed and delivered Official Statement if there is not a Preliminary Official Statement, with such changes, omissions, insertions and revisions as such Authorized Officer shall deem advisable, to sign such Official Statement and to deliver such Official Statement to the purchasers of the Series 2017 Notes, said execution being conclusive evidence of the approval of such changes, omissions, insertions and revisions.

Notwithstanding the preceding two paragraphs, however, each Authorized Officer may make public and authorize the use and distribution of a final Official Statement in connection with the public offering of the Series 2017 Notes meeting the requirements of the preceding two paragraphs and may deem such Official Statement final as of its date for purposes of Rule 15c2-12 of the Securities and Exchange Commission.

Each Authorized Officer is hereby authorized to execute and deliver for and on behalf and in the name of the Issuer, to the extent determined by such Authorized Officer to be necessary or convenient, a Continuing Disclosure Agreement, substantially in the form of the Continuing Disclosure Agreement most recently executed and delivered by the Issuer in connection with the sale of Obligations, or such other form authorized by the Issuer in connection with other financings prior to the issuance of the Series 2017 Notes, with such changes, omissions, insertions and revisions as such Authorized Officer shall deem advisable (the "Continuing Disclosure Agreement"), said execution being conclusive evidence of the approval of such changes, omissions, insertions and revisions.

Each Authorized Officer (including any Assistant Secretary of the Issuer) is hereby authorized and directed to execute and deliver any and all documents and instruments and to do and cause to be done any and all acts necessary or proper for carrying out the Notice of Sale, the Purchase Agreement, the Continuing Disclosure Agreement, the terms of any municipal bond insurance or any other credit or liquidity facility, and the issuance, sale and delivery of the Series 2017 Notes, and for implementing the terms of the Series 2017 Notes and the transactions contemplated hereby or thereby.

When reference is made in this Supplemental Resolution to the authorization of an Authorized Officer to do any act, such act may be accomplished by any of such officers individually.

SECTION 2.10. Forms of Series 2017 Notes and Authentication Certificate. The form of registered Series 2017 Notes, and the certificate of authentication, shall be of substantially the form and tenor provided in any Certificate of Determination.

SECTION 2.11. Appointment of Trustee, Paying Agent and other Agents.

There is hereby delegated to any Authorized Officer executing any Certificate of Determination the right and authority to appoint any trustee, paying agent, fiscal agent or other agent with respect to the Series 2017 Notes deemed advisable by such Authorized Officer and to determine the terms and provisions of any arrangements with any such parties.

SECTION 2.12. General Provisions.

As and to the extent provided in any Certificate of Determination, the provisions of Articles A-III, IV, A-IV, A-VII, A-IX and A-XI of the Resolution may apply equally to the Series 2017 Notes as though set forth in full herein but with each reference to Bonds being a reference to Series 2017 Notes, except as affected by the terms hereof and the procedures of the Securities Depository; provided that the Authorized Officer executing any Certificate of Determination may, in the alternative, set forth in any Certificate of Determination provisions relating to any such matters as deemed necessary or appropriate by such Authorized Officer.

ARTICLE III

DISPOSITION AND ALLOCATION OF SERIES 2017 NOTE PROCEEDS

SECTION 3.01. Disposition of Series 2017 Note Proceeds.

Except as otherwise provided in any Certificate of Determination, the proceeds of the sale of the Series 2017 Notes shall be deposited in the Series 2017 Note Proceeds Account which is hereby established in the Proceeds Fund and applied pursuant to the related Certificate of Determination to the payment of Capital Costs, including any Costs of Issuance and accrued interest, and the payment of principal and interest on Outstanding Series 2017 Notes.

ARTICLE IV

TAX COVENANT PROVISIONS AND DEFEASANCE

SECTION 4.01. Tax Covenants Relating to the Series 2017 Notes.

The Issuer covenants that, in order to maintain the exclusion from gross income for Federal income tax purposes of the interest on the Series 2017 Notes issued as Tax-Exempt Obligations, the Issuer will satisfy, or take such actions as are necessary to cause to be satisfied, each provision of the Code necessary to maintain such exclusion. In furtherance of this covenant, the Issuer agrees to comply with such written instructions as may be provided by Bond Counsel. In furtherance of the covenant contained in the preceding sentence, the Issuer agrees to continually comply with the provisions of any "Arbitrage and Use of Proceeds Certificate" or "Tax Certificate" to be executed by the Issuer in connection with the execution and delivery of any Series 2017 Notes issued as Tax-Exempt Obligations, as amended from time to time.

Notwithstanding any other provision of the Resolution to the contrary, upon the Issuer's failure to observe, or refusal to comply with, the above covenant (a) the Holders of the Series 2017 Notes, or the Trustee acting on their behalf, shall be entitled to the rights and remedies provided to Bondholders under Section 1002 of the Resolution (as though such provisions related to Series 2017 Notes rather than Bonds), other than the right (which is hereby abrogated solely as to the Issuer's failure to observe, or refusal to comply with, the above covenant) to declare the principal of all Notes then Outstanding, and the interest accrued thereon, to be due

and payable pursuant to Section 567 of the Act, and (b) neither the Holders of the Notes of any Series (other than the Series 2017 Notes or the Trustee acting on their behalf) nor the Trustee acting on their behalf, shall be entitled to exercise any right or remedy provided to Noteholders under the Resolution based upon the Issuer's failure to observe, or refusal to comply with, the above covenant.

SECTION 4.02. Defeasance. In the event the Issuer shall seek, prior to the maturity or redemption date thereof, to pay or cause to be paid, within the meaning and with the effect expressed in this Supplemental Resolution, all or less than all Outstanding Series 2017 Notes issued as Tax-Exempt Obligations and the provisions of Section 4.01 hereof shall then be of any force or effect, then, notwithstanding the provisions of this Supplemental Resolution, the Series 2017 Notes issued as Tax-Exempt Obligations which the Issuer then seeks to pay or cause to be paid shall not be deemed to have been paid within the meaning and with the effect expressed in this Supplemental Resolution unless (i) the Issuer has confirmed in writing that the Holders of the Series 2017 Notes issued as Tax-Exempt Obligations which the Issuer then seeks to pay or cause to be paid will continue, after such action, to have the benefit of a covenant to the effect of the covenant of the Issuer contained in Section 4.01 hereof or (ii) there shall have been delivered to the Trustee an opinion of Bond Counsel to the effect that non-compliance thereafter with the applicable provisions of the Code will not affect the then current treatment of interest on the Series 2017 Notes issued as Tax-Exempt Obligations in determining gross income for Federal income tax purposes.

METROPOLITAN TRANSPORTATION AUTHORITY

**MULTIPLE SERIES 2017
TRANSPORTATION REVENUE BOND SUPPLEMENTAL RESOLUTION**

Adopted December 14, 2016

**MULTIPLE SERIES 2017
TRANSPORTATION REVENUE BOND
SUPPLEMENTAL RESOLUTION**

BE IT RESOLVED by the Board of Metropolitan Transportation Authority (the “Issuer”), as follows:

ARTICLE I

DEFINITIONS AND STATUTORY AUTHORITY

Section 1.01. Supplemental Resolution. This resolution is supplemental to, and is adopted in accordance with Article II, Article A-II and Article A-VIII of, a resolution adopted by the Issuer on March 26, 2002, entitled “General Resolution Authorizing Transportation Revenue Obligations”, as heretofore supplemented (the “Resolution”).

Section 1.02. Definitions.

1. All terms which are defined in Section 101 of the Resolution shall have the same meanings, respectively, in this Multiple Series 2017 Transportation Revenue Bond Supplemental Resolution (hereinafter referred to as the “Supplemental Resolution”) as such terms are given in said Section 101 of the Resolution.

2. In this Supplemental Resolution:

“Authorized Officer” shall include the officers designated as such in the Resolution, and the Chairman and Chief Executive Officer, the Vice Chairman, the Chair of the Finance Committee, the Chief Financial Officer or the Director, Finance of the MTA, as well as any officer duly designated as “Acting” in said officer’s capacity, except that, for the purposes of any delegation set forth herein that does not expressly include any Assistant Secretary, “Authorized Officer” shall not include any Assistant Secretary of the Issuer.

“Board” shall mean, when used with respect to the Issuer, the board of the Issuer acting as such pursuant to the provisions of the Issuer Act.

“Bond Counsel” shall mean Nixon Peabody LLP, Orrick, Herrington & Sutcliffe LLP, D. Seaton and Associates, P.A., P.C., Bryant Rabbino LLP or any other attorney or firm of attorneys of nationally recognized standing in the field of law relating to the issuance of obligations by state and municipal entities, selected by the Issuer.

“Code” shall mean the Internal Revenue Code of 1986, as amended, and regulations thereunder.

“Series 2017 Bonds” shall mean the Transportation Revenue Bonds, Series 2017, authorized by Article II of this Supplemental Resolution.

“Series 2017 Notes” shall mean the Transportation Revenue Bond Anticipation Notes, Series 2017, authorized to be issued in one or more Series or subseries in accordance with Section A-203 of the Standard Resolution Provisions and pursuant to a Supplemental Resolution of the Issuer adopted as of the date that this Supplemental Resolution is adopted.

Section 1.03. Authority for this Supplemental Resolution. This Supplemental Resolution is adopted pursuant to the provisions of the Issuer Act and the Resolution.

ARTICLE II

AUTHORIZATION OF SERIES 2017 BONDS

Section 2.01. Principal Amount, Designation and Series. Pursuant to the provisions of the Resolution and in order to finance Capital Costs, a Series of General Revenue Bonds (which may be issued in one or more Series or subseries and from time to time, which for purposes of this Supplemental Resolution shall collectively be referred to herein as the “Series 2017 Bonds”, subject to redesignation as hereinafter provided) entitled to the benefit, protection and security of such provisions are hereby authorized to be issued in an aggregate principal amount not exceeding the principal amount necessary so that, after giving effect to any net original issue discount and underwriters’ discount from the principal amount, the amount to be deposited in the Proceeds Account pursuant to, or otherwise applied to effectuate the purposes of, Section 2.02 and Section 3.01 of this Supplemental Resolution (exclusive of the amount so deposited therein determined in any Certificate of Determination as estimated to be necessary to pay capitalized interest or to pay any Costs of Issuance of the Series 2017 Bonds), shall not exceed the amount or amounts determined in a Certificate of Determination to be necessary to effectuate the purposes set forth in Section 2.02 hereof; provided, however, that the Series 2017 Bonds issued to finance Capital Costs shall not exceed \$2,300 million at any one time Outstanding reduced by the amount of bond anticipation notes (the “Series 2017 Notes”) issued under the Metropolitan Transportation Authority Multiple Series 2017 Bond Anticipation Notes and Related Subordinated Indebtedness Transportation Revenue Bond Supplemental Resolution, adopted December 14, 2016 (but, for purposes of clarification, not including both the Series 2017 Notes and Series 2017 Bonds issued thereunder to refinance Series 2017 Notes). For all purposes of this Section 2.01, net original issue premium as determined to be advisable by an Authorized Officer in connection with the marketing of the Series 2017 Bonds also shall be excluded.

Series 2017 Bonds shall be designated as, and shall be distinguished from the Obligations of all other Series by the title “Transportation Revenue Bonds, Series 2017” or such other title or titles set forth in one or more Certificates of Determination.

The authority to issue the Bonds and take related actions granted under previous resolutions of the Issuer shall continue in full force and effect. The authorization to issue the Series 2017 Bonds shall continue in effect until the adoption by the Issuer Board of a subsequent new money bond issuance supplemental resolution relating to 2018 new money financings, provided, however, the authorization to issue the Series 2017 Bonds to refinance the Series 2017 Notes shall continue in effect until all of such Series 2017 Notes have been refinanced by Series 2017 Bonds.

Section 2.02. Purposes. The purposes for which the Series 2017 Bonds are issued shall be set forth in one or more Certificates of Determination and may include (i) the payment of all or any part of the Capital Costs, and (ii) the payment of principal of and redemption premium, if any, and interest on Outstanding Series 2017 Notes.

Section 2.03. Date, Maturity and Interest for Series 2017 Bonds. The Series 2017 Bonds, except as otherwise provided in the Resolution, shall be dated the date or dates determined in the related Certificate of Determination. The Series 2017 Bonds shall mature on the date or dates and in each year or years and principal amount or amounts, and shall bear interest at the rate or rates per annum, if any, determined in any Certificate of Determination.

Section 2.04. Interest Payments. The Series 2017 Bonds shall bear interest from their date or dates and be payable on such date or dates as may be determined pursuant to the related Certificate of Determination. Except as otherwise provided in the related Certificate of Determination, interest on the Series 2017 Bonds shall be computed on the basis of twelve 30-day months and a 360-day year.

Section 2.05. Denominations, Numbers and Letters. Unless otherwise provided in the related Certificate of Determination, the Series 2017 Bonds shall be issuable in fully registered form without coupons in the denomination of \$5,000 or any integral multiple thereof. The Series 2017 Bonds shall be numbered and lettered as provided in any Certificate of Determination.

Section 2.06. Places of Payment and Paying Agents. Except as otherwise provided in any Certificate of Determination, principal and Redemption Price of the Series 2017 Bonds shall be payable to the registered owner of each Series 2017 Bond when due upon presentation of such Series 2017 Bond at the principal corporate trust office of the Trustee. Except as otherwise provided in the related Certificate of Determination, interest on the registered Series 2017 Bonds will be paid by check or draft mailed on the interest payment date by the Paying Agent, to the registered owner at his address as it appears on the registration books or, at the option of any Owner of at least one million dollars (\$1,000,000) in principal amount of the Series 2017 Bonds, by wire transfer in immediately available funds on each interest payment date to such Owner thereof upon written notice from such Owner to the Trustee, at such address as the Trustee may from time to time notify such Owner, containing the wire transfer address (which shall be in the continental United States) to which such Owner wishes to have such wire directed, if such written notice is received not less than twenty (20) days prior to the related interest payment date (such notice may refer to multiple interest payments).

Section 2.07. Sinking Fund Installments. The Series 2017 Bonds, if any, determined in the related Certificate of Determination shall be subject to redemption in part, by lot, or otherwise as determined in accordance with Section A-404 of the Resolution, on each date in the year or years determined in the related Certificate of Determination at the principal amount thereof plus accrued interest up to but not including the date of redemption thereof, from mandatory Sinking Fund Installments which are required to be made in amounts sufficient to redeem on each such date the principal amount of such Series 2017 Bonds.

Section 2.08. Redemption Prices and Terms. The Series 2017 Bonds may also be subject to redemption prior to maturity, at the option of the Issuer, upon notice as provided in

Article A-IV of the Resolution, at any time as a whole or in part (and by lot within a maturity, or otherwise as determined in accordance with Section A-404 of the Resolution, if less than all of a maturity is to be redeemed), from maturities designated by the Issuer on and after the date and in the years and at the Redemption Prices (expressed as a percentage of principal amount) determined in the related Certificate of Determination, plus accrued interest up to but not including the redemption date. Notwithstanding the foregoing, in the case of taxable Series 2017 Bonds, if set forth in the Certificate of Determination, the taxable Series 2017 Bonds may be made subject to pro rata redemption and/or a make-whole redemption premium.

Section 2.09. Delegation to an Authorized Officer. 1. There is hereby delegated to each Authorized Officer, subject to the limitations contained in this Supplemental Resolution, the following powers with respect to the Series 2017 Bonds:

(a) to determine whether and when to issue any Series 2017 Bonds constituting Capital Cost Obligations, the amount of the Series 2017 Bonds to be applied to finance Capital Costs or other uses as provided in Section 2.02 hereof, and the amount of the proceeds of the Series 2017 Bonds estimated to be necessary to pay the Costs of Issuance of the Series 2017 Bonds and capitalized interest, if any;

(b) to determine the purpose or purposes for which the Series 2017 Bonds are being issued, which shall be one or more of the purposes set forth in Section 2.02 of this Supplemental Resolution;

(c) to determine the principal amounts of the Series 2017 Bonds to be issued for the purposes set forth in Section 2.02 of this Supplemental Resolution and whether such principal amounts constitute a separate Series or a subseries of Series 2017 Bonds, which principal amounts (and the aggregate of all such Series and subseries) shall not exceed the principal amounts permitted by Section 2.01 of this Supplemental Resolution, and to determine Accreted Values and Appreciated Values, if applicable;

(d) to determine the maturity date and principal amount of each maturity of the Series 2017 Bonds and the amount and due date of each Sinking Fund Installment, if any;

(e) to determine the date or dates which the Series 2017 Bonds shall be dated and the interest rate or rates of the Series 2017 Bonds or the manner of determining such interest rate or rates; provided, however, that any Series 2017 Bonds issued as fixed rate Tax-Exempt Obligations shall be subject to a maximum interest rate of not greater than 10% per annum, any Series 2017 Bonds issued as fixed rate Taxable Obligations shall be subject to a maximum interest rate of not greater than 12% per annum, any Variable Interest Rate Obligations issued as Tax-Exempt Obligations shall be subject to a maximum interest rate of not greater than 15% per annum, any Variable Interest Rate Obligations issued as Taxable Obligations shall be subject to a maximum interest rate of not greater than 18% per annum and any Parity Reimbursement Obligations shall be subject to a maximum interest rate of not greater than 25% per annum, or, in each such case, such higher rate or rates as determined by the Issuer's Board;

(f) to determine the Redemption Price or Redemption Prices, if any, and the redemption terms, if any, for the Series 2017 Bonds; provided, however, that if the Series 2017 Bonds are to be redeemable at the election of the Issuer, the Redemption Price (except in the case of taxable Series 2017 Bonds) shall not be greater than one hundred three percent (103%) of the principal amount of the Series 2017 Bonds to be redeemed, plus accrued interest thereon up to but not including the date of redemption and in the case of taxable Series 2017 Bonds the Redemption Price may be determined pursuant to provisions relating to pro rata redemption and/or make-whole redemption;

(g) to determine whether the sale of the Series 2017 Bonds shall be conducted on either a negotiated or competitive bid basis and, as applicable, to determine the purchase price for the Series 2017 Bonds to be paid by the purchaser or purchasers referred to in one or more Purchase Agreements or a bank direct purchase agreement, the purchase price for the Series 2017 Bonds to be paid by the winning bidder, if such sale is conducted by competitive bid pursuant to a Notice of Sale (as hereinafter defined), in either case as such document is described in Section 2.10 of this Supplemental Resolution, which may include such original issue discount and original issue premium as shall be determined in the related Certificate of Determination; provided, however, that, in the case of Series 2017 Bonds sold on a negotiated basis, the underwriters' discount reflected in such purchase price shall not exceed \$10.00 for each one thousand dollars (\$1,000) principal amount of the Series 2017 Bonds;

(h) to take all actions required for the Series 2017 Bonds to be eligible under the rules and regulations of The Depository Trust Company ("DTC") for investment and trading as uncertificated securities, to execute and deliver a standard form of letter of representation with DTC and, notwithstanding any provisions to the contrary contained in this Supplemental Resolution, to include in the related Certificate of Determination such terms and provisions as may be appropriate or necessary to provide for uncertificated securities in lieu of Series 2017 Bonds issuable in fully registered form;

(i) to determine whether to issue all or any portion of the Series 2017 Bonds as Tax-Exempt Obligations, Taxable Obligations, Put Obligations, Variable Interest Rate Obligations or as any other form of Obligations permitted by the Resolution and any matters related thereto, including (i) the terms and provisions of any such Series 2017 Bonds, (ii) the selection of remarketing agents, tender agents, calculation agents, auction agents, dealers, bidding agents or any other agents or parties to ancillary arrangements and the terms of any such arrangements, and (iii) the methods for determining the accrual of Debt Service;

(j) to determine the advisability, as compared to an unenhanced transaction, of obtaining one or more Credit Facilities, to select a provider or providers thereof and to determine and accept the terms and provisions and price thereof, to determine such other matters related thereto as in the opinion of the officer executing the related Certificate of Determination shall be considered necessary or appropriate and to effect such determinations by making any changes in or additions to this Supplemental Resolution required by Credit Facility providers, if any, or required by a Rating Agency in order to attain or maintain specific ratings on the Series 2017 Bonds, or relating to the

mechanisms for the repayment of amounts advanced thereunder or payment of fees, premiums, expenses or any other amounts, notices, the provision of information, and such other matters of a technical, mechanical, procedural or descriptive nature necessary or appropriate to obtain or implement a Credit Facility with respect to the Series 2017 Bonds, and to make any changes in connection therewith;

(k) to make such changes in or from the form of this Supplemental Resolution as may be required by a Rating Agency in order to attain or maintain specific ratings on the Series 2017 Bonds;

(l) to make such changes in or from the form of this Supplemental Resolution as may be necessary or desirable in order to cure any ambiguities, inconsistencies or other defects; and

(m) to determine such other matters specified in or permitted by (i) Sections 202, 203, and A-201 of the Resolution or (ii) this Supplemental Resolution, including preparation of any documentation therefor.

2. Any Authorized Officer shall execute one or more Certificates of Determination evidencing the determinations made pursuant to this Supplemental Resolution and any such Certificate of Determination shall be conclusive evidence of the determinations of such Authorized Officer, as stated therein. More than one Certificate of Determination may be delivered to the extent more than one Series or subseries of Series 2017 Bonds are delivered from time to time, or other authority is exercised under this Supplemental Resolution from time to time and each such Certificate of Determination shall be delivered to the Trustee prior to the authentication and delivery of the respective Series or subseries of Series 2017 Bonds by the Trustee or other documentation. Determinations set forth in the related Certificate of Determination shall have the same effect as if set forth in this Supplemental Resolution. Any such Authorized Officer may exercise any authority delegated under this Supplemental Resolution from time to time following issuance of any Series 2017 Bonds, as appropriate for any purposes, including, in order to change interest rate modes or auction periods, obtain a substitute or additional Credit Facility, enter into a bank direct purchase agreement or similar instrument, or to appoint new or additional agents or other parties deemed appropriate to a particular form or mode of Obligation or manner of sale.

Section 2.10. Sale of Series 2017 Bonds. Each Authorized Officer is hereby authorized either (i) to sell and award all or any portion of the Series 2017 Bonds through a competitive bidding process to purchasers meeting the requirements of one or more Notices of Sale (as hereinafter defined) to be published in order to give notice of the competitive sale of the Series 2017 Bonds; (ii) to sell and award all or any portion of the Series 2017 Bonds through a negotiated sale to the purchasers who are referred to in the bond purchase agreement and who shall be selected from the then current list of approved underwriters; or (iii) to sell and award all or any portion of the Series 2017 Bonds through a direct sale to the financial institution or institutions selected by the Authorized Officer who shall be referred to in the continuing covenant, direct purchase or similar agreement. Each Authorized Officer is hereby authorized to sell and award the Series 2017 Bonds to the purchasers referred to in the preceding sentence in the case of a bond purchase agreement, in substantially the form most recently executed or

delivered by the Issuer in connection with the sale of Obligations, or, with respect to a continuing covenant, direct purchase or similar agreement, containing bank facility terms and provisions (including, without limitation, increased costs, term-out, events of default and remedies) in substantially the form set forth in a letter of credit reimbursement agreement most recently executed or delivered by the Issuer, including, if applicable, that the direct purchaser offer to the Issuer a term-out provision of no less than five years, with such revisions to reflect the terms and provisions of the Series 2017 Bonds as may be approved by the officer executing the bond purchase, continuing covenant or similar agreement (each, a "Purchase Agreement"). Each Authorized Officer is hereby authorized to agree to the selection of the representative of the underwriters or the other purchasers or facility providers as referred to in the Purchase Agreement or Agreements and to execute and deliver the Purchase Agreement or Agreements for and on behalf and in the name of the Issuer with such changes, omissions, insertions and revisions as may be approved by the officer executing the Purchase Agreement or Agreements, said execution being conclusive evidence of such approval and concurrence in the selection of the representative of the underwriters.

If it is determined that any sale of Series 2017 Bonds shall be conducted on a competitive bid basis, each Authorized Officer is hereby further authorized to conduct the sale and award of the Series 2017 Bonds on the basis of a competitive bid, pursuant to the terms of a notice of sale, including bid form (the "Notice of Sale"), in a form, including any limitations on permitted bidders and a description of the basis for determining the winning bidder or bidders, determined by such Authorized Officer. Each Authorized Officer is hereby authorized to conduct such competitive sale of the Series 2017 Bonds in a manner consistent with this Supplemental Resolution and to utilize the services of the Authority's financial advisor and the services of an electronic bidding service, as such Authorized Officer shall determine, and the execution by such Authorized Officer of a letter of award shall be conclusive evidence of such award.

Each Authorized Officer is hereby authorized to make public and to authorize the use and distribution by said purchasers or other appropriate parties of a preliminary official statement, offering circular, or other disclosure document (the "Preliminary Official Statement") in connection with each public offering or any direct or private placement of the Series 2017 Bonds, in substantially the form most recently executed or delivered by the Issuer in connection with the sale of Obligations, with such changes, omissions, insertions and revisions as such officer shall deem advisable. The Issuer authorizes any of said officers to deliver a certification to the effect that such Preliminary Official Statement or Official Statement, if deemed necessary or appropriate, together with such other documents, if any, described in such certificate, was deemed final as of its date for purposes of Rule 15c2-12 of the Securities and Exchange Commission as applicable.

Each Authorized Officer is hereby authorized to make public and to authorize distribution of a final Official Statement in substantially the form of each Preliminary Official Statement or the most recently executed and delivered Official Statement if there is not a Preliminary Official Statement, with such changes, omissions, insertions and revisions as such officer shall deem advisable, to sign such Official Statement and to deliver such Official Statement to the purchasers of such issue of the Series 2017 Bonds, such execution being conclusive evidence of the approval of such changes, omissions, insertions and revisions.

Each Authorized Officer is hereby authorized to execute and deliver for and on behalf and in the name of the Issuer, to the extent determined by such Authorized Officer to be necessary or convenient, a Continuing Disclosure Agreement, substantially in the form appended to the Purchase Agreement or Notice of Sale, with such changes, omissions, insertions and revisions as such officer shall deem advisable (the “Continuing Disclosure Agreement”), said execution being conclusive evidence of the approval of such changes, omissions, insertions and revisions.

The proceeds of each good faith check, if any, received by the Issuer from the purchasers of each issue of the Series 2017 Bonds under the terms of the related Purchase Agreement or Notice of Sale may be invested by the Issuer pending application of the proceeds of such good faith check for the purposes provided in Section 2.02 of this Supplemental Resolution at the time of the issuance and delivery of such Series 2017 Bonds.

Each Authorized Officer (including any Assistant Secretary of the Issuer) is hereby authorized and directed to execute, deliver, amend, replace or terminate any and all documents and instruments (including any remarketing agreements, dealer agreements, broker dealer agreements, tender agent agreements, or auction agency agreements, any investment agreements or arrangements, or any reimbursement agreements or documents or instruments relating to a Credit Facility deemed appropriate to a given form or mode of an Obligation) and to do and cause to be done any and all acts necessary or proper for carrying out each Purchase Agreement or Notice of Sale, the Continuing Disclosure Agreement, the terms of any Credit Facility or other such agreement or arrangement, and the issuance, sale and delivery of the Series 2017 Bonds and for implementing the terms of the Series 2017 Bonds and the transactions contemplated hereby or thereby.

When reference is made in this Supplemental Resolution to the authorization of an Authorized Officer to do any act, such act may be accomplished by any of such officers individually.

Section 2.11. Forms of Series 2017 Bonds and Trustee’s Authentication Certificate. Subject to the provisions of the Resolution, the form of registered Series 2017 Bonds, and the Trustee’s certificate of authentication, shall be substantially in the form set forth in Exhibit One to the Resolution including, if necessary, any changes to comply with the requirements of DTC or the provisions of this Supplemental Resolution or any Certificate of Determination.

Section 2.12. Appointment of Trustee and Paying Agent. Unless otherwise provided by any Certificate of Determination, The Bank of New York Mellon, as successor in interest to JPMorgan Chase Bank, N.A., shall be the Trustee under the Resolution and the Paying Agent for the Series 2017 Bonds.

ARTICLE III

DISPOSITION AND ALLOCATION OF SERIES 2017 BOND PROCEEDS

Section 3.01. Disposition and Allocation of Series 2017 Bond Proceeds. Any proceeds of the sale of the Series 2017 Bonds, other than accrued interest and capitalized interest, if any, shall be disposed of or applied, simultaneously with the issuance and delivery of the Series 2017 Bonds, in the following order, or shall otherwise be disposed of or applied pursuant to the related Certificate of Determination to:

1. the payment of Capital Costs or the payment of principal of and redemption premium, if any, and interest on the Series 2017 Notes; and
2. the balance of such proceeds, exclusive of accrued interest, shall be deposited in the Series 2017 Bond Proceeds Account which is hereby established in the Proceeds Fund and applied to the payment of Costs of Issuance or otherwise applied to the payment of Costs of Issuance.

Section 3.02. Unless otherwise provided in the related Certificate of Determination, the accrued interest and capitalized interest, if any, received on the sale of the Series 2017 Bonds shall be deposited in the Debt Service Fund.

ARTICLE IV

TAX COVENANT PROVISIONS AND DEFEASANCE

Section 4.01. Tax Covenants Relating to the Series 2017 Bonds. The Issuer covenants that, in order to maintain the exclusion from gross income for Federal income tax purposes of the interest on the Series 2017 Bonds issued as Tax-Exempt Obligations, the Issuer will satisfy, or take such actions as are necessary to cause to be satisfied, each provision of the Code necessary to maintain such exclusion. In furtherance of this covenant, the Issuer agrees to comply with such written instructions as may be provided by Bond Counsel. In furtherance of the covenant contained in the preceding sentence, the Issuer agrees to continually comply with the provisions of any "Arbitrage and Use of Proceeds Certificate" or "Tax Certificate" to be executed by the Issuer in connection with the execution and delivery of any Series 2017 Bonds issued as Tax-Exempt Obligations, as amended from time to time.

Notwithstanding any other provision of the Resolution to the contrary, upon the Issuer's failure to observe, or refusal to comply with, the above covenant (a) the Owners of the Series 2017 Bonds, or the Trustee acting on their behalf, shall be entitled to the rights and remedies provided to Owners or the Trustee under Section 702 of the Resolution, and (b) neither the Owners of the Obligations of any Series or holders of any Parity Debt (other than the Series 2017 Bonds or the Trustee acting on their behalf), nor the Trustee acting on their behalf, shall be entitled to exercise any right or remedy provided to the Owners, the Parity Debt holders or the Trustee under the Resolution based upon the Issuer's failure to observe, or refusal to comply with, the above covenant.

Section 4.02. Defeasance. In the event the Issuer shall seek, prior to the maturity or redemption date thereof, to pay or cause to be paid, within the meaning and with the effect expressed in the Resolution, all or less than all Outstanding Series 2017 Bonds issued as Tax-Exempt Obligations and the provisions of Section 4.01 hereof shall then be of any force or effect, then, notwithstanding the provisions of Article A-XI of the Resolution, the Series 2017 Bonds issued as Tax-Exempt Obligations which the Issuer then seeks to pay or cause to be paid shall not be deemed to have been paid within the meaning and with the effect expressed in Section A-1101 of the Resolution unless (i) the Issuer has confirmed in writing that the Owners of the Series 2017 Bonds issued as Tax-Exempt Obligations which the Issuer then seeks to pay or cause to be paid will continue, after such action, to have the benefit of a covenant to the effect of the covenant of the Issuer contained in Section 4.01 hereof or (ii) there shall have been delivered to the Trustee an Opinion of Bond Counsel to the effect that non-compliance thereafter with the applicable provisions of the Code will not affect the then current treatment of interest on the Series 2017 Bonds issued as Tax-Exempt Obligations in determining gross income for Federal income tax purposes.

TRIBOROUGH BRIDGE AND TUNNEL AUTHORITY

**MULTIPLE SERIES 2017
GENERAL REVENUE BOND
SUPPLEMENTAL RESOLUTION**

Adopted December 14, 2016

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**MULTIPLE SERIES 2017
GENERAL REVENUE BOND
SUPPLEMENTAL RESOLUTION**

BE IT RESOLVED by the Triborough Bridge and Tunnel Authority (the “Issuer”), as follows:

ARTICLE I

DEFINITIONS AND STATUTORY AUTHORITY

Section 1.01 Supplemental Resolution. This resolution is supplemental to, and is adopted, in accordance with Article II and Article A-VIII of a resolution of the Issuer adopted on March 26, 2002, entitled “General Resolution Authorizing General Revenue Obligations” (the “Resolution”).

Section 1.02 Definitions.

1. All capitalized terms which are used but not otherwise defined in this Multiple Series 2017 General Revenue Bond Supplemental Resolution (the “Supplemental Resolution”) shall have the same meanings, respectively, as such terms are given by Section 102 of the Resolution.

2. In this Supplemental Resolution:

“Authorized Officer” shall include the officers designated as such in the Resolution, and the Chairman and Chief Executive Officer, the Chair of the Finance Committee, the Vice Chairman, the Chief Financial Officer or the Director, Finance, as well as any officer duly designated as “Acting” in said officer’s capacity, except that, for the purposes of any delegation set forth herein that does not expressly include any Assistant Secretary, “Authorized Officer” shall not include any Assistant Secretary of the Issuer.

“Board” shall mean, when used with respect to the Issuer, the board of the Issuer acting as such pursuant to the provisions of the Issuer Act, and when used with respect to the MTA, the members of the MTA acting as such pursuant to the provisions of the MTA Act.

“Bond Counsel” shall mean Nixon Peabody LLP, Orrick, Herrington & Sutcliffe LLP, D. Seaton and Associates, P.A., P.C., Bryant Rabbino LLP or any other attorney or firm of attorneys of nationally recognized standing in the field of law relating to the issuance of obligations by state and municipal entities, selected by the Issuer.

“Code” shall mean the Internal Revenue Code of 1986, as amended, and regulations thereunder.

Section 1.03 Authority for this Supplemental Resolution. This Supplemental Resolution is adopted pursuant to the provisions of the Issuer Act and the Resolution.

ARTICLE II

AUTHORIZATION OF SERIES 2017 BONDS

Section 2.01 Authorized Principal Amount, Designation and Series. Pursuant to the provisions of the Resolution and in order to finance Capital Costs, multiple Series of General Revenue Obligations (which may be issued at one time or from time to time in any number of Series or subseries, which for purposes of this Supplemental Resolution shall collectively be referred to herein as the “Series 2017 Bonds”, constituting Capital Cost Obligations, subject to redesignation as hereinafter provided) entitled to the benefit, protection and security of such provisions are hereby authorized to be issued in an aggregate principal amount not exceeding the principal amount necessary so that, after giving effect to any net original issue discount and underwriters’ discount from the principal amount, the amount to be deposited in the Proceeds Account pursuant to, or otherwise applied to effectuate the purposes of, Section 2.02 and Section 3.01 of this Supplemental Resolution (exclusive of the amount so deposited therein determined in the related Certificate of Determination as estimated to be necessary to pay capitalized interest or to pay any Costs of Issuance of the Series 2017 Bonds) shall not exceed the amount or amounts determined in one or more Certificates of Determination to be necessary to effectuate the purposes set forth in Section 2.02 hereof; provided, however, that the Series 2017 Bonds issued to finance Capital Costs shall not exceed \$300 million reduced by the amount of bonds then Outstanding issued under the Triborough Bridge and Tunnel Authority Multiple Series 2001 Subordinate Revenue Bond Supplemental Resolution, adopted December 14, 2016 (excluding all amounts excluded above, such as net original issue discount, underwriters’ discounts, capitalized interest and Costs of Issuance). For all purposes of this Section 2.01, net original issue premium as determined to be advisable by an Authorized Officer in connection with the marketing of the Series 2017 Bonds, shall not be counted.

Series 2017 Bonds shall be designated as, and shall be distinguished from the Obligations of all other Series by the title, “General Revenue Bonds, Series 2017” or such other title or titles set forth in one or more Certificates of Determination.

The authority to issue Obligations and take related actions granted under previous resolutions of the Issuer shall continue in full force and effect. The authorization to issue the Series 2017 Bonds shall continue in effect until the adoption by the Issuer Board of a subsequent new money bond issuance supplemental resolution relating to 2018 new money financings.

Section 2.02 Purposes. The purposes for which the Series 2017 Bonds are issued shall be set forth in one or more Certificates of Determination and shall include the payment of all or any part of the Capital Costs, all to the extent and in the manner provided in this Supplemental Resolution.

Section 2.03 Dates, Maturities, Principal Amounts and Interest. The Series 2017 Bonds, except as otherwise provided in the Resolution, shall be dated the date or dates determined in the related Certificate of Determination. The Series 2017 Bonds shall mature on the date or dates and in the year or years and principal amount or amounts, and shall bear interest at the rate or rates per annum, if any, specified in or determined in the manner provided in the related Certificate of Determination.

Section 2.04 Interest Payments. The Series 2017 Bonds shall bear interest from their date or dates and be payable on such date or dates as may be determined pursuant to the related Certificate of Determination. Except as otherwise provided in the related Certificate of Determination, interest on the Series 2017 Bonds shall be computed on the basis of twelve (12) 30-day months and a 360-day year.

Section 2.05 Denominations, Numbers and Letters. Unless otherwise provided in the related Certificate of Determination, the Series 2017 Bonds shall be issued in fully registered form without coupons in the denomination of \$5,000 or any integral multiple thereof.

The Series 2017 Bonds shall be lettered and numbered as provided in the related Certificate of Determination.

Section 2.06 Places of Payment and Paying Agent. Except as otherwise provided in the related Certificate of Determination, principal and Redemption Price of the Series 2017 Bonds shall be payable to the registered owner of each Series 2017 Bond when due upon presentation of such Series 2017 Bond at the principal corporate trust office of the Trustee. Except as otherwise provided in the related Certificate of Determination, interest on the registered Series 2017 Bonds will be paid by check or draft mailed on the interest payment date by the Paying Agent, to the registered owner at his address as it appears on the registration books or, at the option of any Owner of at least one million dollars (\$1,000,000) in principal amount of the Series 2017 Bonds, by wire transfer in immediately available funds on each interest payment date to such Owner thereof upon written notice from such Owner to the Trustee, at such address as the Trustee may from time to time notify such Owner, containing the wire transfer address (which shall be in the continental United States) to which such Owner wishes to have such wire directed, if such written notice is received not less than twenty (20) days prior to the related interest payment date (such notice may refer to multiple interest payments).

Section 2.07 Sinking Fund Installments. The Series 2017 Bonds, if any, determined in the related Certificate of Determination shall be subject to redemption in part, by lot, or otherwise as determined in accordance with Section A-404 of the Resolution, on each date in the year or years determined in the related Certificate of Determination at the principal amount thereof plus accrued interest up to but not including the date of redemption thereof, from mandatory Sinking Fund Installments which are required to be made in amounts sufficient to redeem on each such date the principal amount of such Series 2017 Bonds.

Section 2.08 Redemption Prices and Terms. The Series 2017 Bonds may also be subject to redemption prior to maturity, at the option of the Issuer, upon notice as provided in Article A-IV of the Resolution, at any time as a whole or in part (and by lot within a maturity, or otherwise as determined in accordance with Section A-404 of the Resolution, if less than all of a maturity is to be redeemed), from maturities designated by the Issuer on and after the date and in the years and at the Redemption Prices (expressed as a percentage of principal amount) determined in the related Certificate of Determination, plus accrued interest up to but not including the redemption date. Notwithstanding the foregoing, in the case of taxable Series 2017 Bonds, if set forth in the Certificate of Determination, the taxable Series 2017 Bonds may be made subject to pro rata redemption and/or a make-whole redemption premium.

Section 2.09 Delegation to an Authorized Officer. 1. There is hereby delegated to each Authorized Officer, subject to the limitations contained in this Supplemental Resolution, the following powers with respect to the Series 2017 Bonds:

(a) to determine whether and when to issue any Series 2017 Bonds constituting Capital Cost Obligations, the amount of the Series 2017 Bonds to be applied to finance Capital Costs, and the amount of the proceeds of the Series 2017 Bonds, estimated to be necessary to pay the Costs of Issuance of the Series 2017 Bonds and capitalized interest, if any;

(b) to determine the purpose or purposes for which the Series 2017 Bonds are being issued, which shall be one or more of the purposes set forth in Section 2.02 of this Supplemental Resolution;

(c) to determine the principal amounts of the Series 2017 Bonds to be issued for the purposes set forth in Section 2.02 of this Supplemental Resolution and whether such principal amounts constitute a separate Series or a subseries of Series 2017 Bonds, which principal amounts (and the aggregate of all such Series and subseries) shall not exceed the principal amounts permitted by Section 2.01 of this Supplemental Resolution, and to determine Accreted Values and Appreciated Values, if applicable;

(d) to determine the maturity date and principal amount of each maturity of the Series 2017 Bonds and the amount and due date of each Sinking Fund Installment, if any;

(e) to determine the date or dates which the Series 2017 Bonds shall be dated and the interest rate or rates of the Series 2017 Bonds or the manner of determining such interest rate or rates; provided, however, that any Series 2017 Bonds issued as fixed rate Tax-Exempt Obligations shall be subject to a maximum interest rate of not greater than 10% per annum, any Series 2017 Bonds issued as fixed rate Taxable Obligations shall be subject to a maximum interest rate of not greater than 12% per annum, any Variable Interest Rate Obligations issued as Tax-Exempt Obligations shall be subject to a maximum interest rate of not greater than 15% per annum, any Variable Interest Rate Obligations issued as Taxable Obligations shall be subject to a maximum interest rate of not greater than 18% per annum and any Parity Reimbursement Obligations shall be subject to a maximum interest rate of not greater than 25% per annum, or, in each such case, such higher rate or rates as determined by the Issuer's Board;

(f) to determine the Redemption Price or Redemption Prices, if any and the redemption terms, if any, for the Series 2017 Bonds; provided, however, that if the Series 2017 Bonds are to be redeemable at the election of the Issuer, the Redemption Price (except in the case of taxable Series 2017 Bonds) shall not be greater than one hundred three percent (103%) of the principal amount of the Series 2017 Bonds to be redeemed, plus accrued interest thereon up to but not including the date of redemption and in the case of taxable Series 2017 Bonds the Redemption Price may be determined pursuant to provisions relating to pro rata redemption and/or make-whole redemption;

(g) to determine whether the sale of the Series 2017 Bonds shall be conducted on either a negotiated or competitive bid basis and, as applicable, to determine the purchase price for the Series 2017 Bonds to be paid by the purchaser or purchasers referred to in one or more

Purchase Agreements or a bank direct purchase agreement or the purchase price for the Series 2017 Bonds to be paid by the winning bidder, if such sale is conducted by competitive bid pursuant to a Notice of Sale (as hereinafter defined), in either case as such document is described in Section 2.10 of this Supplemental Resolution, which may include such original issue discount and original issue premium as shall be determined in the related Certificate of Determination; provided, however, that the underwriters' discount reflected in such purchase price shall not exceed \$10.00 for each one thousand dollars (\$1,000) principal amount of the Series 2017 Bonds;

(h) to take all actions required for the Series 2017 Bonds to be eligible under the rules and regulations of The Depository Trust Company ("DTC") for investment and trading as uncertificated securities, to execute and deliver a standard form of letter of representation with DTC and, notwithstanding any provisions to the contrary contained in this Supplemental Resolution, to include in the related Certificate of Determination such terms and provisions as may be appropriate or necessary to provide for uncertificated securities in lieu of Series 2017 Bonds issuable in fully registered form;

(i) to determine whether to issue all or any portion of the Series 2017 Bonds as Tax-Exempt Obligations, Taxable Obligations, Put Obligations, Variable Interest Rate Obligations or as any other form of Obligations permitted by the Resolution and any matters related thereto, including (i) the terms and provisions of any such Series 2017 Bonds, (ii) the selection of remarketing agents, tender agents, calculation agents, auction agents, dealers, bidding, agents or any other agents or parties to ancillary arrangements and the terms of any such arrangements, and (iii) the methods for determining the accrual of Debt Service;

(j) to determine the advisability, as compared to an unenhanced transaction, of obtaining one or more Credit Facilities, to select a provider or providers thereof and to determine and accept the terms and provisions and price thereof, to determine such other matters related thereto as in the opinion of the officer executing the related Certificate of Determination shall be considered necessary or appropriate and to effect such determinations by making any changes in or additions to this Supplemental Resolution required by Credit Facility providers, if any, or required by a Rating Agency in order to attain or maintain specific ratings on the Series 2017 Bonds, or relating to the mechanisms for the repayment of amounts advanced thereunder or payment of fees, premiums, expenses or any other amounts, notices, the provision of information, and such other matters of a technical, mechanical, procedural or descriptive nature necessary or appropriate to obtain or implement a Credit Facility with respect to the Series 2017 Bonds, and to make any changes in connection therewith;

(k) to make such changes in or from the form of this Supplemental Resolution as may be required by a Rating Agency in order to attain or maintain specific ratings on the Series 2017 Bonds;

(l) to make such changes in or from the form of this Supplemental Resolution as may be necessary or desirable in order to cure any ambiguities, inconsistencies or other defects; and

(m) to determine such other matters specified in or permitted by (i) Sections 202, 203, and A-201 of the Resolution or (ii) this Supplemental Resolution, including preparation of any documentation therefor.

2. Any Authorized Officer shall execute one or more Certificates of Determination evidencing the determinations made pursuant to this Supplemental Resolution and any such Certificate of Determination shall be conclusive evidence of the determinations of such Authorized Officer, as stated therein. More than one Certificate of Determination may be delivered to the extent more than one Series or subseries of Series 2017 Bonds are delivered from time to time, or other authority is exercised under this Supplemental Resolution from time to time and each such Certificate of Determination shall be delivered to the Trustee prior to the authentication and delivery of the respective Series or subseries of Series 2017 Bonds by the Trustee or other documentation. Determinations set forth in the related Certificate of Determination shall have the same effect as if set forth in this Supplemental Resolution. Any such Authorized Officer may exercise any authority delegated under this Supplemental Resolution from time to time following issuance of any Series 2017 Bonds, as appropriate for any purposes, including, in order to change interest rate modes or auction periods, obtain a substitute or additional Credit Facility, enter into a bank direct purchase agreement or similar instrument, or to appoint new or additional agents or other parties deemed appropriate to a particular form or mode of Obligation or manner of sale.

Section 2.10 Sale of Series 2017 Bonds. Each Authorized Officer is hereby authorized either (i) to sell and award all or any portion of the Series 2017 Bonds through a competitive bidding process to purchasers meeting the requirements of one or more Notices of Sale (as hereinafter defined) to be published in order to give notice of the competitive sale of the Series 2017 Bonds; (ii) to sell and award all or any portion of the Series 2017 Bonds through a negotiated sale to the purchasers who are referred to in the bond purchase agreement and who shall be selected from the then current list of approved underwriters; or (iii) to sell and award all or any portion of the Series 2017 Bonds through a direct sale to the financial institution or institutions selected by the Authorized Officer who shall be referred to in the continuing covenant, direct purchase or similar agreement. Each Authorized Officer is hereby authorized to sell and award the Series 2017 Bonds to the purchasers referred to in the preceding sentence in the case of a bond purchase agreement, in substantially the form most recently executed or delivered by the Issuer in connection with the sale of Obligations, or, with respect to a continuing covenant, direct purchase or similar agreement, containing bank facility terms and provisions (including, without limitation, increased costs, term-out, events of default and remedies) in substantially the form set forth in a letter of credit reimbursement agreement most recently executed or delivered by the Issuer, including, if applicable, that the direct purchaser offer to the Issuer a term-out provision of no less than five years, with such revisions to reflect the terms and provisions of the Series 2017 Bonds as may be approved by the officer executing the bond purchase, continuing covenant or similar agreement (each, a "Purchase Agreement"). Each Authorized Officer is hereby authorized to agree to the selection of the representative of the underwriters or the other purchasers or facility providers as referred to in the Purchase Agreement or Agreements and to execute and deliver the Purchase Agreement or Agreements for and on behalf and in the name of the Issuer with such changes, omissions, insertions and revisions as may be approved by the officer executing the Purchase Agreement or Agreements,

said execution being conclusive evidence of such approval and concurrence in the selection of the representative of the underwriters.

If it is determined that any sale of Series 2017 Bonds shall be conducted on a competitive bid basis each Authorized Officer is hereby further authorized to conduct the sale and award of the Series 2017 Bonds on the basis of a competitive bid, pursuant to the terms of a notice of sale, including bid form (the "Notice of Sale"), in a form, including any limitations on permitted bidders and a description of the basis for determining the winning bidder or bidders, determined by such Authorized Officer. Each Authorized Officer is hereby authorized to conduct such competitive sale of the Series 2017 Bonds in a manner consistent with this Supplemental Resolution and to utilize the services of the Authority's financial advisor and the services of an electronic bidding service, as such Authorized Officer shall determine, and the execution by such Authorized Officer of a letter of award shall be conclusive evidence of such award.

Each Authorized Officer is hereby authorized to make public and to authorize the use and distribution by said purchasers or other appropriate parties of a preliminary official statement, offering circular, or other disclosure document (the "Preliminary Official Statement") in connection with each public offering or any direct or private placement of the Series 2017 Bonds, in substantially the form most recently executed or delivered by the Issuer in connection with the sale of Obligations, with such changes, omissions, insertions and revisions as such officer shall deem advisable. The Issuer authorizes any of said officers to deliver a certification to the effect that such Preliminary Official Statement or Official Statement, if deemed necessary or appropriate, together with such other documents, if any, described in such certificate, was deemed final as of its date for purposes of Rule 15c2-12 of the Securities and Exchange Commission as applicable.

Each Authorized Officer is hereby authorized to make public and to authorize distribution of a final Official Statement in substantially the form of each Preliminary Official Statement or the most recently executed and delivered Official Statement if there is not a Preliminary Official Statement, with such changes, omissions, insertions and revisions as such officer shall deem advisable, to sign such Official Statement and to deliver such Official Statement to the purchasers of such issue of the Series 2017 Bonds, such execution being conclusive evidence of the approval of such changes, omissions, insertions and revisions.

Each Authorized Officer is hereby authorized to execute and deliver for and on behalf and in the name of the Issuer, to the extent determined by such Authorized Officer to be necessary or convenient, a Continuing Disclosure Agreement, substantially in the form appended to the Purchase Agreement or Notice of Sale, with such changes, omissions, insertions and revisions as such officer shall deem advisable (the "Continuing Disclosure Agreement"), said execution being conclusive evidence of the approval of such changes, omissions, insertions and revisions.

The proceeds of each good faith check, if any, received by the Issuer from the purchasers of each issue of the Series 2017 Bonds under the terms of the related Purchase Agreement or Notice of Sale may be invested by the Issuer pending application of the proceeds of such good faith check for the purposes provided in Section 2.02 of this Supplemental Resolution at the time of the issuance and delivery of such Series 2017 Bonds.

Each Authorized Officer (including any Assistant Secretary of the Issuer) is hereby authorized and directed to execute, deliver, amend, replace or terminate any and all documents and instruments (including any remarketing agreements, dealer agreements, broker-dealer agreements, tender agent agreements, or auction agency agreements, any investment agreements or arrangements, or any reimbursement agreements or documents or instruments relating to a Credit Facility deemed appropriate to a given form or mode of an Obligation) and to do and cause to be done any and all acts necessary or proper for carrying out each Purchase Agreement or Notice of Sale, each Continuing Disclosure Agreement, the terms of any Credit Facility or other such agreement or arrangement, and the issuance, sale and delivery of each issue of the Series 2017 Bonds and for implementing the terms of each issue of the Series 2017 Bonds and the transactions contemplated hereby or thereby.

When reference is made in this Supplemental Resolution to the authorization of an Authorized Officer to do any act, such act may be accomplished by any of such officers individually.

Section 2.11 Forms of Series 2017 Bonds and Trustee's Authentication Certificate. Subject to the provisions of the Resolution, the form of registered Series 2017 Bonds, and the Trustee's certificate of authentication, shall be substantially in the form set forth in Exhibit One to the Resolution including, if necessary, any changes to comply with the requirements of DTC or the provisions of this Supplemental Resolution or the related Certificate of Determination.

Section 2.12 Appointment of Trustee and Paying Agent. Unless otherwise provided in the related Certificate of Determination, U.S. Bank Trust National Association shall be the Trustee under the Resolution and the Paying Agent for the Series 2017 Bonds.

ARTICLE III

DISPOSITION OF SERIES 2017 BOND PROCEEDS

Section 3.01 Disposition of Series 2017 Bond Proceeds. Any proceeds of the sale of the Series 2017 Bonds, other than accrued interest and capitalized interest, if any, shall be deposited, simultaneously with the issuance and delivery of the Series 2017 Bonds, at one time or from time to time in one or more Series or subseries, in the Proceeds Account which is deemed to be established for each Series in the Proceeds Fund to be applied, or shall otherwise be applied pursuant to a Certificate of Determination to:

- (a) the payment of all or any part of the Capital Costs; and
- (b) the balance of such proceeds, exclusive of accrued interest, shall be deposited in the COI Account and applied to the payment of Costs of Issuance or otherwise applied to the payment of Costs of Issuance.

Unless otherwise provided in the related Certificate of Determination, accrued interest and capitalized interest, if any, received on the sale of the Series 2017 Bonds shall be deposited in the Debt Service Fund.

ARTICLE IV

TAX COVENANTS AND DEFEASANCE

Section 4.01 Tax Covenants Relating to the Series 2017 Bonds. The Issuer covenants that, in order to maintain the exclusion from gross income for Federal income tax purposes of the interest on the Series 2017 Bonds issued as Tax-Exempt Obligations, the Issuer will satisfy, or take such actions as are necessary to cause to be satisfied, each provision of the Code necessary to maintain such exclusion. In furtherance of this covenant, the Issuer agrees to comply with such written instructions as may be provided by Bond Counsel. In furtherance of the covenant contained in the preceding sentence, the Issuer agrees to continually comply with the provisions of any "Arbitrage and Use of Proceeds Certificate" or "Tax Certificate" to be executed by the Issuer in connection with the execution and delivery of any Series 2017 Bonds issued as Tax-Exempt Obligations, as amended from time to time.

Notwithstanding any other provision of the Resolution to the contrary, upon the Issuer's failure to observe, or refusal to comply with the above covenant (a) the Owners of the Series 2017 Bonds, or the Trustee acting on their behalf, shall be entitled to the rights and remedies provided to Owners or the Trustee under Section 702 of the Resolution, other than the right (which is hereby abrogated solely as to the Issuer's failure to observe, or refusal to comply with the above covenant) to declare the principal of all Obligations then Outstanding, and the interest accrued thereon, to be due and payable pursuant to Section 567 of the Issuer Act, and (b) neither the Owners of the Obligations of any Series or holders of any Parity Debt (other than the Series 2017 Bonds or the Trustee acting on their behalf), nor the Trustee acting on their behalf, shall be entitled to exercise any right or remedy provided to the Owners, the Parity Debt holders or the Trustee under the Resolution based upon the Issuer's failure to observe, or refusal to comply with, the above covenant.

The provisions of the foregoing covenants set forth in this Section shall not apply to any Series 2017 Bonds, including any subseries thereof, which the Issuer determines pursuant to the applicable Certificate of Determination to issue as Taxable Obligations.

Section 4.02 Defeasance. In the event the Issuer shall seek, prior to the maturity or redemption date thereof, to pay or cause to be paid, within the meaning and with the effect expressed in the Resolution, all or less than all Outstanding Series 2017 Bonds issued as Tax-Exempt Obligations and the provisions of Section 4.01 hereof shall then be of any force or effect, then, notwithstanding the provisions of Article A-XI of the Resolution, the Series 2017 Bonds issued as Tax-Exempt Obligations which the Issuer then seeks to pay or cause to be paid shall not be deemed to have been paid within the meaning and with the effect expressed in Section A-1101 of the Resolution unless (i) the Issuer has confirmed in writing that the Owners of the Series 2017 Bonds issued as Tax-Exempt Obligations which the Issuer then seeks to pay or cause to be paid will continue, after such action, to have the benefit of a covenant to the effect of the covenant of the Issuer contained in Section 4.01 hereof or (ii) there shall have been delivered to the Trustee an Opinion of Bond Counsel to the effect that non-compliance thereafter with the applicable provisions of the Code will not affect the then current treatment of interest on the Series 2017 Bonds issued as Tax-Exempt Obligations in determining gross income for Federal income tax purposes.

TRIBOROUGH BRIDGE AND TUNNEL AUTHORITY

**MULTIPLE SERIES 2001
SUBORDINATE REVENUE BOND
SUPPLEMENTAL RESOLUTION**

Adopted December 14, 2016

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**MULTIPLE SERIES 2001
SUBORDINATE REVENUE BOND
SUPPLEMENTAL RESOLUTION**

BE IT RESOLVED by the Triborough Bridge and Tunnel Authority (the “Issuer”), as follows:

ARTICLE I

DEFINITIONS AND STATUTORY AUTHORITY

Section 1.01 Supplemental Resolution. This resolution is supplemental to, and is adopted, in accordance with Article II and Article A-VIII of a resolution of the Issuer adopted on March 26, 2002, entitled “2001 Subordinate Revenue Resolution Authorizing Subordinate Revenue Obligations” (the “Resolution”).

Section 1.02 Definitions.

1. All capitalized terms which are used but not otherwise defined in this Multiple Series 2001 Subordinate Revenue Bond Supplemental Resolution (the “Supplemental Resolution”) shall have the same meanings, respectively, as such terms are given by Section 102 of the Resolution.

2. In this Supplemental Resolution:

“Authorized Officer” shall include the officers designated as such in the Resolution, and the Chairman and Chief Executive Officer, the Chair of the Finance Committee, the Vice Chairman, the Chief Financial Officer or the Director, Finance, as well as any officer duly designated as “Acting” in said officer’s capacity, except that, for the purposes of any delegation set forth herein that does not expressly include any Assistant Secretary, “Authorized Officer” shall not include any Assistant Secretary of the Issuer.

“Board” shall mean, when used with respect to the Issuer, the board of the Issuer acting as such pursuant to the provisions of the Issuer Act, and when used with respect to the MTA, the members of the MTA acting as such pursuant to the provisions of the MTA Act.

“Bond Counsel” shall mean Nixon Peabody LLP, Orrick, Herrington & Sutcliffe LLP, D. Seaton and Associates, P.A., P.C., Bryant Rabbino LLP or any other attorney or firm of attorneys of nationally recognized standing in the field of law relating to the issuance of obligations by state and municipal entities, selected by the Issuer.

“Code” shall mean the Internal Revenue Code of 1986, as amended, and regulations thereunder.

Section 1.03 Authority for this Supplemental Resolution. This Supplemental Resolution is adopted pursuant to the provisions of the Issuer Act and the Resolution.

ARTICLE II

AUTHORIZATION OF SERIES 2017 BONDS

Section 2.01 Authorized Principal Amount, Designation and Series. Pursuant to the provisions of the Resolution and in order to finance Capital Costs, multiple Series of Subordinate Revenue Obligations (which may be issued at one time or from time to time in any number of Series or subseries, which for purposes of this Supplemental Resolution shall collectively be referred to herein as the “Series 2017 Bonds”, constituting Capital Cost Subordinate Revenue Obligations, subject to redesignation as hereinafter provided) entitled to the benefit, protection and security of such provisions are hereby authorized to be issued in an aggregate principal amount not exceeding the principal amount necessary so that, after giving effect to any net original issue discount and underwriters’ discount from the principal amount, the amount to be deposited in the Proceeds Account pursuant to, or otherwise applied to effectuate the purposes of, Section 2.02 and Section 3.01 of this Supplemental Resolution (exclusive of the amount so deposited therein determined in the related Certificate of Determination as estimated to be necessary to pay capitalized interest or to pay any Costs of Issuance of the Series 2017 Bonds) shall not exceed the amount or amounts determined in one or more Certificates of Determination to be necessary to effectuate the purposes set forth in Section 2.02 hereof; provided, however, that the Series 2017 Bonds issued to finance Capital Costs shall not exceed \$300 million, reduced by the amount of bonds then Outstanding issued under the Triborough Bridge and Tunnel Authority Multiple Series 2017 General Revenue Bond Supplemental Resolution, adopted December 14, 2016 (excluding all amounts excluded above, such as net original issue discount, underwriters’ discounts, capitalized interest and Costs of Issuance). For all purposes of this Section 2.01, net original issue premium as determined to be advisable by an Authorized Officer in connection with the marketing of the Series 2017 Bonds, shall not be counted.

Series 2017 Bonds shall be designated as, and shall be distinguished from the Obligations of all other Series by the title, “Subordinate Revenue Bonds, Series 2017” or such other title or titles set forth in one or more Certificates of Determination.

The authority to issue Obligations and take related actions granted under previous resolutions of the Issuer shall continue in full force and effect. The authorization to issue the Series 2017 Bonds shall continue in effect until the adoption by the Issuer Board of a subsequent new money bond issuance supplemental resolution relating to 2018 new money financings.

Section 2.02 Purposes. The purposes for which the Series 2017 Bonds are issued shall be set forth in one or more Certificates of Determination and shall include the payment of all or any part of the Capital Costs, all to the extent and in the manner provided in this Supplemental Resolution.

Section 2.03 Dates, Maturities, Principal Amounts and Interest. The Series 2017 Bonds, except as otherwise provided in the Resolution, shall be dated the date or dates determined in the related Certificate of Determination. The Series 2017 Bonds shall mature on the date or dates and in the year or years and principal amount or amounts, and shall bear interest at the rate or rates per annum, if any, specified in or determined in the manner provided in the related Certificate of Determination.

Section 2.04 Interest Payments. The Series 2017 Bonds shall bear interest from their date or dates and be payable on such date or dates as may be determined pursuant to the related Certificate of Determination. Except as otherwise provided in the related Certificate of Determination, interest on the Series 2017 Bonds shall be computed on the basis of twelve (12) 30-day months and a 360-day year.

Section 2.05 Denominations, Numbers and Letters. Unless otherwise provided in the related Certificate of Determination, the Series 2017 Bonds shall be issued in fully registered form without coupons in the denomination of \$5,000 or any integral multiple thereof.

The Series 2017 Bonds shall be lettered and numbered as provided in the related Certificate of Determination.

Section 2.06 Places of Payment and Paying Agent. Except as otherwise provided in the related Certificate of Determination, principal and Redemption Price of the Series 2017 Bonds shall be payable to the registered owner of each Series 2017 Bond when due upon presentation of such Series 2017 Bond at the principal corporate trust office of the Trustee. Except as otherwise provided in the related Certificate of Determination, interest on the registered Series 2017 Bonds will be paid by check or draft mailed on the interest payment date by the Paying Agent, to the registered owner at his address as it appears on the registration books or, at the option of any Owner of at least one million dollars (\$1,000,000) in principal amount of the Series 2017 Bonds, by wire transfer in immediately available funds on each interest payment date to such Owner thereof upon written notice from such Owner to the Trustee, at such address as the Trustee may from time to time notify such Owner, containing the wire transfer address (which shall be in the continental United States) to which such Owner wishes to have such wire directed, if such written notice is received not less than twenty (20) days prior to the related interest payment date (such notice may refer to multiple interest payments).

Section 2.07 Sinking Fund Installments. The Series 2017 Bonds, if any, determined in the related Certificate of Determination shall be subject to redemption in part, by lot, or otherwise as determined in accordance with Section A-404 of the Resolution, on each date in the year or years determined in the related Certificate of Determination at the principal amount thereof plus accrued interest up to but not including the date of redemption thereof, from mandatory Sinking Fund Installments which are required to be made in amounts sufficient to redeem on each such date the principal amount of such Series 2017 Bonds.

Section 2.08 Redemption Prices and Terms. The Series 2017 Bonds may also be subject to redemption prior to maturity, at the option of the Issuer, upon notice as provided in Article A-IV of the Resolution, at any time as a whole or in part (and by lot within a maturity, or otherwise as determined in accordance with Section A-404 of the Resolution, if less than all of a maturity is to be redeemed), from maturities designated by the Issuer on and after the date and in the years and at the Redemption Prices (expressed as a percentage of principal amount) determined in the related Certificate of Determination, plus accrued interest up to but not including the redemption date. Notwithstanding the foregoing, in the case of taxable Series 2017 Bonds, if set forth in the Certificate of Determination, the taxable Series 2017 Bonds may be made subject to pro rata redemption and/or a make-whole redemption premium.

Section 2.09 Delegation to an Authorized Officer. 1. There is hereby delegated to each Authorized Officer, subject to the limitations contained in this Supplemental Resolution, the following powers with respect to the Series 2017 Bonds:

(a) to determine whether and when to issue any Series 2017 Bonds constituting Capital Cost Subordinate Revenue Obligations, the amount of the Series 2017 Bonds to be applied to finance Capital Costs, and the amount of the proceeds of the Series 2017 Bonds, estimated to be necessary to pay the Costs of Issuance of the Series 2017 Bonds and capitalized interest, if any;

(b) to determine the purpose or purposes for which the Series 2017 Bonds are being issued, which shall be one or more of the purposes set forth in Section 2.02 of this Supplemental Resolution;

(c) to determine the principal amounts of the Series 2017 Bonds to be issued for the purposes set forth in Section 2.02 of this Supplemental Resolution and whether such principal amounts constitute a separate Series or a subseries of Series 2017 Bonds, which principal amounts (and the aggregate of all such Series and subseries) shall not exceed the principal amounts permitted by Section 2.01 of this Supplemental Resolution, and to determine Accreted Values and Appreciated Values, if applicable;

(d) to determine the maturity date and principal amount of each maturity of the Series 2017 Bonds and the amount and due date of each Sinking Fund Installment, if any;

(e) to determine the date or dates which the Series 2017 Bonds shall be dated and the interest rate or rates of the Series 2017 Bonds or the manner of determining such interest rate or rates; provided, however, that any Series 2017 Bonds issued as fixed rate Tax-Exempt Obligations shall be subject to a maximum interest rate of not greater than 10% per annum, any Series 2017 Bonds issued as fixed rate Taxable Obligations shall be subject to a maximum interest rate of not greater than 12% per annum, any Variable Interest Rate Obligations issued as Tax-Exempt Obligations shall be subject to a maximum interest rate of not greater than 15% per annum, any Variable Interest Rate Obligations issued as Taxable Obligations shall be subject to a maximum interest rate of not greater than 18% per annum and any Parity Reimbursement Obligations shall be subject to a maximum interest rate of not greater than 25% per annum, or, in each such case, such higher rate or rates as determined by the Issuer's Board;

(f) to determine the Redemption Price or Redemption Prices, if any, and the redemption terms, if any, for the Series 2017 Bonds; provided, however, that if the Series 2017 Bonds are to be redeemable at the election of the Issuer, the Redemption Price (except in the case of taxable Series 2017 Bonds) shall not be greater than one hundred three percent (103%) of the principal amount of the Series 2017 Bonds to be redeemed, plus accrued interest thereon up to but not including the date of redemption and in the case of taxable Series 2017 Bonds the Redemption Price may be determined pursuant to provisions relating to pro rata redemption and/or make-whole redemption;

(g) to determine whether the sale of the Series 2017 Bonds shall be conducted on either a negotiated or competitive bid basis and, as applicable, to determine the purchase price for the Series 2017 Bonds to be paid by the purchaser or purchasers referred to in one or more

Purchase Agreements or a bank direct purchase agreement or the purchase price for the Series 2017 Bonds to be paid by the winning bidder, if such sale is conducted by competitive bid pursuant to a Notice of Sale (as hereinafter defined), in either case as such document is described in Section 2.10 of this Supplemental Resolution, which may include such original issue discount and original issue premium as shall be determined in the related Certificate of Determination; provided, however, that the underwriters' discount reflected in such purchase price shall not exceed \$10.00 for each one thousand dollars (\$1,000) principal amount of the Series 2017 Bonds;

(h) to take all actions required for the Series 2017 Bonds to be eligible under the rules and regulations of The Depository Trust Company ("DTC") for investment and trading as uncertificated securities, to execute and deliver a standard form of letter of representation with DTC and, notwithstanding any provisions to the contrary contained in this Supplemental Resolution, to include in the related Certificate of Determination such terms and provisions as may be appropriate or necessary to provide for uncertificated securities in lieu of Series 2017 Bonds issuable in fully registered form;

(i) to determine whether to issue all or any portion of the Series 2017 Bonds as Tax-Exempt Obligations, Taxable Obligations, Put Obligations, Variable Interest Rate Obligations or as any other form of Obligations permitted by the Resolution and any matters related thereto, including (i) the terms and provisions of any such Series 2017 Bonds, (ii) the selection of remarketing agents, tender agents, calculation agents, auction agents, dealers, bidding, agents or any other agents or parties to ancillary arrangements and the terms of any such arrangements, and (iii) the methods for determining the accrual of Debt Service;

(j) to determine the advisability, as compared to an unenhanced transaction, of obtaining one or more Credit Facilities, to select a provider or providers thereof and to determine and accept the terms and provisions and price thereof, to determine such other matters related thereto as in the opinion of the officer executing the related Certificate of Determination shall be considered necessary or appropriate and to effect such determinations by making any changes in or additions to this Supplemental Resolution required by Credit Facility providers, if any, or required by a Rating Agency in order to attain or maintain specific ratings on the Series 2017 Bonds, or relating to the mechanisms for the repayment of amounts advanced thereunder or payment of fees, premiums, expenses or any other amounts, notices, the provision of information, and such other matters of a technical, mechanical, procedural or descriptive nature necessary or appropriate to obtain or implement a Credit Facility with respect to the Series 2017 Bonds, and to make any changes in connection therewith;

(k) to make such changes in or from the form of this Supplemental Resolution as may be required by a Rating Agency in order to attain or maintain specific ratings on the Series 2017 Bonds; and

(l) to make such changes in or from the form of this Supplemental Resolution as may be necessary or desirable in order to cure any ambiguities, inconsistencies or other defects; and

(m) to determine such other matters specified in or permitted by (i) Sections 202, 203, and A-201 of the Resolution or (ii) this Supplemental Resolution, including preparation of any documentation therefor.

2. Any Authorized Officer shall execute one or more Certificates of Determination evidencing the determinations made pursuant to this Supplemental Resolution and any such Certificate of Determination shall be conclusive evidence of the determinations of such Authorized Officer, as stated therein. More than one Certificate of Determination may be delivered to the extent more than one Series or subseries of Series 2017 Bonds are delivered from time to time, or other authority is exercised under this Supplemental Resolution from time to time and each such Certificate of Determination shall be delivered to the Trustee prior to the authentication and delivery of the respective Series or subseries of Series 2017 Bonds by the Trustee or other documentation. Determinations set forth in the related Certificate of Determination shall have the same effect as if set forth in this Supplemental Resolution. Any such Authorized Officer may exercise any authority delegated under this Supplemental Resolution from time to time following issuance of any Series 2017 Bonds, as appropriate for any purposes, including, in order to change interest rate modes or auction periods, obtain a substitute or additional Credit Facility, enter into a bank direct purchase agreement or similar instrument, or to appoint new or additional agents or other parties deemed appropriate to a particular form or mode of Obligation or manner of sale.

Section 2.10 Sale of Series 2017 Bonds. Each Authorized Officer is hereby authorized either (i) to sell and award all or any portion of the Series 2017 Bonds through a competitive bidding process to purchasers meeting the requirements of one or more Notices of Sale (as hereinafter defined) to be published in order to give notice of the competitive sale of the Series 2017 Bonds; (ii) to sell and award all or any portion of the Series 2017 Bonds through a negotiated sale to the purchasers who are referred to in the bond purchase agreement and who shall be selected from the then current list of approved underwriters; or (iii) to sell and award all or any portion of the Series 2017 Bonds through a direct sale to the financial institution or institutions selected by the Authorized Officer who shall be referred to in the continuing covenant, direct purchase or similar agreement. Each Authorized Officer is hereby authorized to sell and award the Series 2017 Bonds to the purchasers referred to in the preceding sentence in the case of a bond purchase agreement, in substantially the form most recently executed or delivered by the Issuer in connection with the sale of Obligations, or, with respect to a continuing covenant, direct purchase or similar agreement, containing bank facility terms and provisions (including, without limitation, increased costs, term-out, events of default and remedies) in substantially the form set forth in a letter of credit reimbursement agreement most recently executed or delivered by the Issuer, including, if applicable, that the direct purchaser offer to the Issuer a term-out provision of no less than five years, with such revisions to reflect the terms and provisions of the Series 2017 Bonds as may be approved by the officer executing the bond purchase, continuing covenant or similar agreement (each, a "Purchase Agreement"). Each Authorized Officer is hereby authorized to agree to the selection of the representative of the underwriters or the other purchasers or facility providers as referred to in the Purchase Agreement or Agreements and to execute and deliver the Purchase Agreement or Agreements for and on behalf and in the name of the Issuer with such changes, omissions, insertions and revisions as may be approved by the officer executing the Purchase Agreement or Agreements, said execution being conclusive evidence of such approval and concurrence in the selection of the representative of the underwriters.

If it is determined that any sale of Series 2017 Bonds shall be conducted on a competitive bid basis each Authorized Officer is hereby further authorized to conduct the sale and award of the Series 2017 Bonds on the basis of a competitive bid, pursuant to the terms of a notice of sale,

including bid form (the “Notice of Sale”), in a form, including any limitations on permitted bidders and a description of the basis for determining the winning bidder or bidders, determined by such Authorized Officer. Each Authorized Officer is hereby authorized to conduct such competitive sale of the Series 2017 Bonds in a manner consistent with this Supplemental Resolution and to utilize the services of the Authority’s financial advisor and the services of an electronic bidding service, as such Authorized Officer shall determine, and the execution by such Authorized Officer of a letter of award shall be conclusive evidence of such award.

Each Authorized Officer is hereby authorized to make public and to authorize the use and distribution by said purchasers or other appropriate parties of a preliminary official statement, offering circular, or other disclosure document (the “Preliminary Official Statement”) in connection with each public offering or any direct or private placement of the Series 2017 Bonds, in substantially the form most recently executed or delivered by the Issuer in connection with the sale of Obligations, with such changes, omissions, insertions and revisions as such officer shall deem advisable. The Issuer authorizes any of said officers to deliver a certification to the effect that such Preliminary Official Statement or Official Statement, if deemed necessary or appropriate, together with such other documents, if any, described in such certificate, was deemed final as of its date for purposes of Rule 15c2-12 of the Securities and Exchange Commission as applicable.

Each Authorized Officer is hereby authorized to make public and to authorize distribution of a final Official Statement in substantially the form of each Preliminary Official Statement or the most recently executed and delivered Official Statement if there is not a Preliminary Official Statement, with such changes, omissions, insertions and revisions as such officer shall deem advisable, to sign such Official Statement and to deliver such Official Statement to the purchasers of such issue of the Series 2017 Bonds, such execution being conclusive evidence of the approval of such changes, omissions, insertions and revisions.

Each Authorized Officer is hereby authorized to execute and deliver for and on behalf and in the name of the Issuer, to the extent determined by such Authorized Officer to be necessary or convenient, a Continuing Disclosure Agreement, substantially in the form appended to the Purchase Agreement or Notice of Sale, with such changes, omissions, insertions and revisions as such officer shall deem advisable (the “Continuing Disclosure Agreement”), said execution being conclusive evidence of the approval of such changes, omissions, insertions and revisions.

The proceeds of each good faith check, if any, received by the Issuer from the purchasers of each issue of the Series 2017 Bonds under the terms of the related Purchase Agreement or Notice of Sale may be invested by the Issuer pending application of the proceeds of such good faith check for the purposes provided in Section 2.02 of this Supplemental Resolution at the time of the issuance and delivery of such Series 2017 Bonds.

Each Authorized Officer (including any Assistant Secretary of the Issuer) is hereby authorized and directed to execute, deliver, amend, replace or terminate any and all documents and instruments (including any remarketing agreements, dealer agreements, broker-dealer agreements, tender agent agreements, or auction agency agreements, any investment agreements or arrangements, or any reimbursement agreements or documents or instruments relating to a Credit Facility deemed appropriate to a given form or mode of an Obligation) and to do and

cause to be done any and all acts necessary or proper for carrying out each Purchase Agreement or Notice of Sale, each Continuing Disclosure Agreement, the terms of any Credit Facility or other such agreement or arrangement, and the issuance, sale and delivery of each issue of the Series 2017 Bonds and for implementing the terms of each issue of the Series 2017 Bonds and the transactions contemplated hereby or thereby.

When reference is made in this Supplemental Resolution to the authorization of an Authorized Officer to do any act, such act may be accomplished by any of such officers individually.

Section 2.11 Forms of Series 2017 Bonds and Trustee's Authentication Certificate. Subject to the provisions of the Resolution, the form of registered Series 2017 Bonds, and the Trustee's certificate of authentication, shall be substantially in the form set forth in Exhibit One to the Resolution including, if necessary, any changes to comply with the requirements of DTC or the provisions of this Supplemental Resolution or the related Certificate of Determination.

Section 2.12 Appointment of Trustee and Paying Agent. Unless otherwise provided in the related Certificate of Determination, The Bank of New York Mellon, as successor in interest to JPMorgan Chase Bank, N.A., shall be the Trustee under the Resolution and the Paying Agent for the Series 2017 Bonds.

ARTICLE III

DISPOSITION OF SERIES 2017 BOND PROCEEDS

Section 3.01 Disposition of Series 2017 Bond Proceeds. Any proceeds of the sale of the Series 2017 Bonds, other than accrued interest and capitalized interest, if any, shall be deposited, simultaneously with the issuance and delivery of the Series 2017 Bonds, at one time or from time to time in one or more Series or subseries, in the Proceeds Account which is deemed to be established for each Series in the Proceeds Fund to be applied, or shall otherwise be applied pursuant to a Certificate of Determination to:

- (a) the payment of all or any part of the Capital Costs; and
- (b) the balance of such proceeds, exclusive of accrued interest, shall be deposited in the COI Account and applied to the payment of Costs of Issuance or otherwise applied to the payment of Costs of Issuance.

Unless otherwise provided in the related Certificate of Determination, accrued interest and capitalized interest, if any, received on the sale of the Series 2017 Bonds shall be deposited in the Debt Service Fund.

ARTICLE IV

TAX COVENANTS AND DEFEASANCE

Section 4.01 Tax Covenants Relating to the Series 2017 Bonds. The Issuer covenants that, in order to maintain the exclusion from gross income for Federal income tax purposes of the interest on the Series 2017 Bonds issued as Tax-Exempt Obligations, the Issuer

will satisfy, or take such actions as are necessary to cause to be satisfied, each provision of the Code necessary to maintain such exclusion. In furtherance of this covenant, the Issuer agrees to comply with such written instructions as may be provided by Bond Counsel. In furtherance of the covenant contained in the preceding sentence, the Issuer agrees to continually comply with the provisions of any “Arbitrage and Use of Proceeds Certificate” or “Tax Certificate” to be executed by the Issuer in connection with the execution and delivery of any Series 2017 Bonds issued as Tax-Exempt Obligations, as amended from time to time.

Notwithstanding any other provision of the Resolution to the contrary, upon the Issuer’s failure to observe, or refusal to comply with the above covenant (a) the Owners of the Series 2017 Bonds, or the Trustee acting on their behalf, shall be entitled to the rights and remedies provided to Owners or the Trustee under Section 702 of the Resolution, other than the right (which is hereby abrogated solely as to the Issuer’s failure to observe, or refusal to comply with the above covenant) to declare the principal of all Obligations then Outstanding, and the interest accrued thereon, to be due and payable pursuant to Section 567 of the Issuer Act, and (b) neither the Owners of the Obligations of any Series or holders of any Parity Debt (other than the Series 2017 Bonds or the Trustee acting on their behalf), nor the Trustee acting on their behalf, shall be entitled to exercise any right or remedy provided to the Owners, the Parity Debt holders or the Trustee under the Resolution based upon the Issuer’s failure to observe, or refusal to comply with, the above covenant.

The provisions of the foregoing covenants set forth in this Section shall not apply to any Series 2017 Bonds, including any subseries thereof, which the Issuer determines pursuant to the applicable Certificate of Determination to issue as Taxable Obligations.

Section 4.02 Additional Covenants.

1. The Issuer covenants and agrees that it will not issue any Senior Obligations under the Senior Resolution (other than pursuant to Section 205 thereof) unless in addition to satisfying the requirements of the Senior Resolution, an Authorized Officer delivers to the trustee under the Senior Resolution a certificate demonstrating that for any period of 12 consecutive calendar months out of the 18 complete calendar months next preceding the date of authentication and delivery such issue of Senior Obligations, Net Revenues are at least equal to 1.10 times the Combined Maximum Annual Calculated Debt Service for all Subordinate Revenue Obligations, Parity Debt, Senior Obligations and Senior Parity Debt.

2. The Issuer covenants and agrees that in addition to complying with the provisions of Section 604 of the Resolution, the Issuer shall at all times establish, levy, maintain and collect, or cause to be established, levied, maintained and collected, such tolls, rentals and other charges in connection with the TBTA Facilities as shall always be sufficient, together with other money available therefor (including the anticipated receipt of proceeds of sale of Obligations or other bonds, notes or other obligations or evidences of indebtedness of the Issuer that will be used to pay the principal of Obligations issued in anticipation of such receipt, but not including any anticipated or actual proceeds from the sale of TBTA Facilities), to equal or exceed in each calendar year the greater of (a) an amount equal to the sum of amounts necessary in such calendar year (i) to pay all Operating Expenses of the Issuer, plus (ii) to pay the sum of Calculated Debt Service as defined in the Resolution and Calculated Debt Service as defined in the Senior Resolution, plus (iii) to maintain any reserve established by the Issuer pursuant to the

Senior Resolution, in such amount as may be determined from time to time by an Authorized Officer in his or her judgment, or (b) an amount such that Revenues less Operating Expenses shall equal at least 1.10 times the sum of Calculated Debt Service as defined in the Senior Resolution and Calculated Debt Service as defined in the Resolution for such calendar year.

Section 4.03 Defeasance. In the event the Issuer shall seek, prior to the maturity or redemption date thereof, to pay or cause to be paid, within the meaning and with the effect expressed in the Resolution, all or less than all Outstanding Series 2017 Bonds issued as Tax-Exempt Obligations and the provisions of Section 4.01 hereof shall then be of any force or effect, then, notwithstanding the provisions of Article A-XI of the Resolution, the Series 2017 Bonds issued as Tax-Exempt Obligations which the Issuer then seeks to pay or cause to be paid shall not be deemed to have been paid within the meaning and with the effect expressed in Section A-1101 of the Resolution unless (i) the Issuer has confirmed in writing that the Owners of the Series 2017 Bonds issued as Tax-Exempt Obligations which the Issuer then seeks to pay or cause to be paid will continue, after such action, to have the benefit of a covenant to the effect of the covenant of the Issuer contained in Section 4.01 hereof or (ii) there shall have been delivered to the Trustee an Opinion of Bond Counsel to the effect that non-compliance thereafter with the applicable provisions of the Code will not affect the then current treatment of interest on the Series 2017 Bonds issued as Tax-Exempt Obligations in determining gross income for Federal income tax purposes.

Staff Summary

Subject Authorization to Issue Transportation Revenue Refunding Bonds, Dedicated Tax Fund Refunding Bonds, Triborough Bridge and Tunnel Authority General Revenue Refunding Bonds and Subordinate Revenue Refunding Bonds	Date December 14, 2016
Department Finance	Vendor Name N/A
Department Head Name Robert E. Foran, Chief Financial Officer	Contract Number
Department Head Signature 	Contract Manager Name
Project Manager Name Patrick McCoy, Director of Finance 	Table of Contents Ref #

Board Action						Internal Approvals			
Order	To	Date	Approval	Info	Other	Order	Approval	Order	Approval
1	Finance Comm.	12/12	X			1	Legal 	2	Chief of Staff 
2	Board	12/14	X						

PURPOSE:

The MTA Finance Department is seeking MTA and TBTA Board authorization and approval of the necessary documentation to issue refunding bonds, from time to time, subject, if applicable, to the refunding policy attached hereto adopted by the Board in May, 2010, as amended from time to time, and provided that the MTA Chief Financial Officer or the MTA Director, Finance makes a determination that the refunding of such bonds or other obligations will be beneficial to the obligors thereof and/or their affiliates and subsidiaries. The MTA Finance Department is also seeking authority to allow for a portion of the Transportation Revenue Refunding Bonds and Dedicated Tax Fund Refunding Revenue Bonds to be issued as variable rate securities to refund bonds that already meet the refunding policy requirements based on a fixed rate refunding. MTA's portfolio of outstanding indebtedness is \$37.1 billion (exclusive of State Service Contract Bonds, which debt service is paid by the State).

DISCUSSION:

MTA and TBTA Board approval is sought for the following resolutions, documents and activities in connection with the issuance of refunding bonds:

- MTA Multiple Series Transportation Revenue Refunding Bond Supplemental Resolution (2017) authorizing Metropolitan Transportation Authority Transportation Revenue Refunding Obligations, including providing for the issuance of the following:
 - Parity Reimbursement Obligations and Parity Debt in an amount sufficient to secure any Credit Facilities entered into in connection with the issuance of the Transportation Revenue Refunding Obligations.
- MTA Multiple Series Dedicated Tax Fund Refunding Bond Supplemental Resolution (2017) authorizing Metropolitan Transportation Authority Dedicated Tax Fund Refunding Obligations, including providing for the issuance of the following:

- Parity Reimbursement Obligations and Parity Debt in an amount sufficient to secure any Credit Facilities entered into in connection with the issuance of the Dedicated Tax Fund Revenue Refunding Obligations.
- TBTA Multiple Series General Revenue Refunding Bond Supplemental Resolution (2017) authorizing Triborough Bridge and Tunnel Authority General Revenue Refunding Obligations, including providing for the issuance of the following:
 - Parity Reimbursement Obligations and other Parity Debt in an amount sufficient to secure any Credit Facilities entered into in connection with the issuance of the General Revenue Refunding Obligations.
- TBTA Multiple Series 2001 Subordinate Revenue Refunding Bond Supplemental Resolution (2017) authorizing Triborough Bridge and Tunnel Authority Subordinate Revenue Refunding Obligations, including providing for the issuance of the following:
 - Parity Reimbursement Obligations and other Parity Debt in an amount sufficient to secure any Credit Facilities entered into in connection with the issuance of the Subordinate Revenue Refunding Obligations.

With respect to the above-referenced financial transactions, MTA and TBTA Board approval, as applicable, is sought:

(a) delegating authority to the Chairman and Chief Executive Officer, the Chair of the Finance Committee, the Vice Chairman, the Chief Financial Officer or the Director, Finance to award the obligations either pursuant to competitive bid or to members (or entities related to such firms) of the Board-approved MTA underwriting syndicate and to execute and/or deliver in each case, where appropriate:

- Notices of Sale and bid forms,
- Purchase Agreements with underwriters,
- Direct Purchase Agreements,
- Official Statements and other disclosure documents,
- Continuing Disclosure Agreements and related filings,
- Remarketing Agreements,
- Dealer and Broker/Dealer Agreements,
- Issuing and Paying Agent Agreements,
- Credit Facilities and related Parity Reimbursement Obligations and Parity Debt,
- Related Subordinated Contract Obligations,
- Verification Reports,
- Escrow Agreements, and
- Investment Agreements.

Any such documents will be in substantially the form of any document previously entered into by MTA or TBTA for previous issues, with such changes as approved by any one or more of the foregoing officers.

(b) authorizing such officers to terminate, amend, supplement, replace or extend any such documents, including existing Credit Facilities (and related Parity Reimbursement Obligations and Parity Debt), as they shall deem advisable, and to take such other actions as may be necessary or desirable to effectuate the issuance of the refunding bonds and other financial transactions set forth above, on behalf of MTA, TBTA or other MTA subsidiaries and affiliates.

ALTERNATIVES:

The Board could determine that staff seek specific approval for each refunding contemplated in advance of undertaking such refunding. This alternative is not advised as the timing of the Board cycle could result in missed market opportunities.

RECOMMENDATION:

The MTA and TBTA Boards approve the above-referenced resolutions and documents and all other actions described above, including the execution and delivery of such other documents, and the taking of all other actions, from time to time deemed necessary or desirable by such officers in connection therewith. The authorization to issue the refunding bonds and take other related actions hereunder shall continue in effect without any further action by the MTA or TBTA Boards, until the adoption by the MTA and TBTA Boards, of subsequent refunding bond supplemental resolutions relating to 2018 refundings unless (a) the MTA and TBTA Boards shall have confirmed the effectiveness of this authorization for an additional period, or (b) the MTA and TBTA Boards shall have modified or repealed this authorization.

Adopted May 26, 2010

BOND AND OTHER DEBT OBLIGATIONS REFUNDING POLICY

WHEREAS, The Metropolitan Transportation Authority has a large portfolio of outstanding bonds and other debt obligations; and

WHEREAS, The Metropolitan Transportation Authority desires to achieve the lowest possible interest cost for such bonds; and

WHEREAS, The Metropolitan Transportation Authority desires, from time to time, to benefit from favorable capital market conditions to undertake refundings of the outstanding bonds and other obligations; and

WHEREAS, The Metropolitan Transportation Authority has determined that in order to provide guidance in the issuance of refunding bonds, a refunding policy ("Refunding Policy") is desirable.

WHEREAS, such refunding bonds must be authorized by the Board in accordance with a supplemental resolution for each of the MTA and TBTA credits, such supplemental resolutions are attached hereto;

BE IT RESOLVED by the Metropolitan Transportation Authority that, except as otherwise provided by separate action of the Authority relating to a particular refunding, the Refunding Policy as set forth below shall be adopted and shall apply to all refundings of bonds or other debt obligations described therein hereafter.

**Metropolitan Transportation Authority
and Triborough Bridge and Tunnel Authority
Bond and Other Debt Obligations Refunding Policy**

This bond and other debt obligations refunding policy establishes conditions precedent to any issuance of fixed rate bonds for the purposes of refunding fixed rate bonds previously issued by the MTA or any of the Related Entities.

- For a standard fixed rate refunding, each individual bond maturity is expected to have net present value (NPV) savings (expressed as a percentage of the par amount of refunded bonds) of at least the following amounts at the time of mailing the Preliminary Official Statement and at the time of the initial pricing of the refunding bonds (nothing herein precludes the addition of individual bond maturities that meet the savings criteria, or the deletion of bond maturities that do not meet the savings criteria on the day of pricing):

		Years to Call		
		0 to 2	3 to 7	8 plus
Years From Call To Maturity	0 to 5	0.5%	1.0%	2.0%
	6 to 10	1.0%	2.5%	4.0%
	11 to 15	3.0%	4.0%	5.0%
	16 plus	4.0%	5.05%	5.5%

- In addition to achieving the above maturity-by-maturity NPV savings, aggregate NPV savings must be at least 3.0 percent of the par amount of refunded bonds.
- The arbitrage yield must be utilized in calculating NPV savings.
- Actual escrow investments must be used in calculation of refunding savings at the time of pricing.

Additional Criteria and Instructions

- The evaluation of refunding opportunities with respect to the State Bond Issuance Charge (BIC) shall be factored in as a cost of issuance with respect to total NPV savings requirement calculations. The individual bond-by-bond maturity evaluations shall also include BIC as a factor.
- If it is possible to meet the arbitrage yield in a refunding escrow with SLGS, they should be used. In the event SLGS could provide a yield higher than the arbitrage yield, as many rolling 0 percent SLGS as possible should be used to blend down the arbitrage yield. If the arbitrage yield cannot be met with SLGS or the SLGS window is not open, treasury securities and other open market securities can be considered, consistent with the investment restrictions in the bond resolution.

METROPOLITAN TRANSPORTATION AUTHORITY

**MULTIPLE SERIES
TRANSPORTATION REVENUE REFUNDING BOND
SUPPLEMENTAL RESOLUTION**

Adopted December 14, 2016

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**MULTIPLE SERIES
TRANSPORTATION REVENUE REFUNDING BOND
SUPPLEMENTAL RESOLUTION**

BE IT RESOLVED by the Metropolitan Transportation Authority (the “Issuer”), as follows:

ARTICLE I

DEFINITIONS AND STATUTORY AUTHORITY

Section 1.01. Supplemental Resolution. This resolution is supplemental to, and is adopted in accordance with Article II and Article A-VIII of, a resolution of the Issuer adopted on March 26, 2002, entitled “General Resolution Authorizing Transportation Revenue Obligations” (the “Resolution”).

Section 1.02. Definitions.

1. All capitalized terms which are used but not otherwise defined in this Multiple Series Transportation Revenue Refunding Bond Supplemental Resolution (the “Supplemental Resolution”) shall have the same meanings, respectively, as such terms are given by Section 102 of the Resolution.

2. In this Supplemental Resolution:

“Authorized Officer” shall include the officers designated as such in the Resolution, and the Chairman and Chief Executive Officer, the Chair of the Finance Committee, the Vice Chairman, the Chief Financial Officer or the Director, Finance, as well as any officer duly designated as “Acting” in said officer’s capacity, except that, for the purposes of any delegation set forth herein that does not expressly include any Assistant Secretary, “Authorized Officer” shall not include any Assistant Secretary of the Issuer.

“Board” shall mean the members of the Issuer acting as such pursuant to the provisions of the Issuer Act.

“Bond Counsel” shall mean Nixon Peabody LLP, Orrick, Herrington & Sutcliffe LLP, D. Seaton and Associates, P.A., P.C., Bryant Rabbino LLP or any other attorney or firm of attorneys of nationally recognized standing in the field of law relating to the issuance of obligations by state and municipal entities, selected by the Issuer.

“Code” shall mean the Internal Revenue Code of 1986, as amended, and regulations thereunder.

“Cross-Credit Obligations” shall mean indebtedness or other obligations issued or incurred by the Issuer or any other Related Entity as described in clause (iii) of the definition of “Capital Costs”, but excluding Obligations.

“Refunding Bonds” shall mean the Transportation Revenue Bonds authorized by Article II of this Supplemental Resolution in one or more Series or subseries.

Section 1.03. Authority for this Supplemental Resolution. This Supplemental Resolution is adopted pursuant to the provisions of the Issuer Act and the Resolution.

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ARTICLE II

AUTHORIZATION OF REFUNDING BONDS

Section 2.01. Authorized Principal Amount, Designation and Series.

1. Pursuant to the provisions of the Resolution and in order to issue (a) Refunding Obligations, and (b) Obligations for the purpose of refunding Cross-Credit Obligations, multiple Series of Transportation Revenue Obligations (which may be issued at one time or from time to time in any number of Series or subseries, which for purposes of this Supplemental Resolution shall collectively be referred to herein as the “Refunding Bonds”, subject to redesignation as hereinafter provided) entitled to the benefit, protection and security of such provisions are hereby authorized to be issued in an aggregate principal amount not exceeding the principal amount necessary so that, after giving effect to any net original issue discount or premium and underwriters’ discount from the principal amount, the amount to be deposited in the Proceeds Account pursuant to, or otherwise applied to effectuate the purposes of, Section 2.02 and Section 3.01 of this Supplemental Resolution (exclusive of the amount so deposited therein determined in any Certificate of Determination as estimated to be necessary to pay any Costs of Issuance of the Refunding Bonds payable from such Proceeds Account or otherwise applied to pay such Costs of Issuance), shall not exceed the amount or amounts determined in one or more Certificates of Determination to be necessary to effectuate the purposes set forth in Section 2.02 hereof; provided, however, that any Refunding Bonds issued pursuant to this Supplemental Resolution shall be issued in compliance with any Board policies relating to the issuance of refunding bonds as may be in effect from time to time.

2. Nothing in this Supplemental Resolution is intended to preclude the issuance of Refunding Bonds as refunding obligations in accordance with Section 203 of the Resolution.

Refunding Bonds shall be designated as, and shall be distinguished from the Obligations of all other Series by the title, “Transportation Revenue Bonds, Series [insert calendar year of issuance]” or such other title or titles set forth in the related Certificate of Determination.

The authority to issue Obligations and take related actions granted under previous resolutions of the Issuer shall continue in full force and effect. The authorization to issue the Refunding Bonds and take other related actions hereunder shall continue in effect without any further action by the Issuer until the adoption by the MTA Board of a subsequent refunding bond supplemental resolution relating to 2018 refundings.

Section 2.02. Purposes. The purposes for which the Refunding Bonds are issued shall be set forth in one or more Certificates of Determination and may include the refunding, restructuring or payment, including by purchasing, exchanging or tendering therefor, of all or any portion of any Outstanding Obligations or Parity Debt or Cross-Credit Obligations deemed advisable by an Authorized Officer in accordance with Section 203 or 204 of the Resolution, as applicable.

Section 2.03. Dates, Maturities, Principal Amounts and Interest. The Refunding Bonds, except as otherwise provided in the Resolution, shall be dated the date or dates determined in the related Certificate of Determination. The Refunding Bonds shall mature on the date or dates and in the year or years and principal amount or amounts, and shall bear interest at the rate or rates per annum, if any, specified in or determined in the manner provided in the related Certificate of Determination.

Section 2.04. Interest Payments. The Refunding Bonds shall bear interest from their date or dates and be payable on such date or dates as may be determined pursuant to the related Certificate of Determination. Except as otherwise provided in the related Certificate of Determination, interest on the Refunding Bonds shall be computed on the basis of twelve 30-day months and a 360-day year.

Section 2.05. Denominations, Numbers and Letters. Unless otherwise provided in the related Certificate of Determination, the Refunding Bonds shall be issued in fully registered form without coupons in the denomination of \$5,000 or any integral multiple thereof.

The Refunding Bonds shall be lettered and numbered as provided in the related Certificate of Determination.

Section 2.06. Places of Payment and Paying Agent. Except as otherwise provided in the related Certificate of Determination, principal and Redemption Price of the Refunding Bonds shall be payable to the registered owner of each Refunding Bond when due upon presentation of such Refunding Bond at the principal corporate trust office of the Trustee. Except as otherwise provided in the related Certificate of Determination, interest on the registered Refunding Bonds will be paid by check or draft mailed on the interest payment date by the Paying Agent, to the registered owner at his address as it appears on the registration books or, at the option of any Owner of at least one million dollars (\$1,000,000) in principal amount of the Refunding Bonds, by wire transfer in immediately available funds on each interest payment date to such Owner thereof upon written notice from such Owner to the Trustee, at such address as the Trustee may from time to time notify such Owner, containing the wire transfer address (which shall be in the continental United States) to which such Owner wishes to have such wire directed, if such written notice is received not less than twenty (20) days prior to the related interest payment date (such notice may refer to multiple interest payments).

Section 2.07. Sinking Fund Installments. The Refunding Bonds, if any, determined in the related Certificate of Determination shall be subject to redemption (a) in part, by lot, (b) pro rata (in the case of taxable Refunding Bonds), or (c) otherwise as determined in accordance with Section A-404 of the Resolution, as set forth in the Certificate of Determination, on each date in the year or years determined in the Certificate of Determination at the principal amount thereof plus accrued interest up to but not including the date of redemption thereof, from mandatory Sinking Fund Installments which are required to be made in amounts sufficient to redeem on each such date the principal amount of such Refunding Bonds.

Section 2.08. Redemption Prices and Terms. The Refunding Bonds may also be subject to redemption prior to maturity, at the option of the Issuer, upon notice as provided in Article A-IV of the Resolution, at any time as a whole or in part (and by lot within a maturity, or

otherwise as determined in accordance with Section A-404 of the Resolution, if less than all of a maturity is to be redeemed), from maturities designated by the Issuer on and after the date and in the years and at the Redemption Prices (expressed as a percentage of principal amount) determined in the related Certificate of Determination, plus accrued interest up to but not including the redemption date. Notwithstanding the foregoing, in the case of taxable Refunding Bonds, if set forth in the Certificate of Determination, the taxable Refunding Bonds may be made subject to pro rata redemption and/or a make-whole redemption premium.

Section 2.09. Delegation to an Authorized Officer. 1. There is hereby delegated to each Authorized Officer, subject to the limitations contained in this Supplemental Resolution, the following powers with respect to the Refunding Bonds:

(a) to determine whether and when to issue any Refunding Bonds constituting Refunding Obligations or Obligations issued to refund Cross-Credit Obligations, and to determine the amount of the proceeds of the Refunding Bonds to be applied to refunding purposes as well as the specific Obligations or Parity Debt or Cross-Credit Obligations, or portions of either to be refunded and the date or dates, if any, on which such refunded obligations shall be redeemed, and the amount of the proceeds of the Refunding Bonds estimated to be necessary to pay the Costs of Issuance of the Refunding Bonds;

(b) to determine the purpose or purposes for which the Refunding Bonds are being issued, which shall be one or more of the purposes set forth in Section 2.02 of this Supplemental Resolution;

(c) to determine the principal amounts of the Refunding Bonds to be issued for the purposes set forth in Section 2.02 of this Supplemental Resolution and whether such principal amounts constitute a separate Series or a subseries of Refunding Bonds, and to determine Accreted Values and Appreciated Values, if applicable;

(d) to determine the maturity date and principal amount of each maturity of the Refunding Bonds and the amount and due date of each Sinking Fund Installment, if any;

(e) to determine the date or dates which the Refunding Bonds shall be dated and the interest rate or rates of the Refunding Bonds or the manner of determining such interest rate or rates; provided, however, that any Obligations issued as fixed rate Tax-Exempt Obligations shall be subject to a maximum interest rate of not greater than 10% per annum, any Obligations issued as fixed rate Taxable Obligations shall be subject to a maximum interest rate of not greater than 12% per annum, any Variable Interest Rate Obligations issued as Tax-Exempt Obligations shall be subject to a maximum interest rate of not greater than 15% per annum, any Variable Interest Rate Obligations issued as Taxable Obligations shall be subject to a maximum interest rate of not greater than 18% per annum and any Parity Reimbursement Obligations shall be subject to a maximum interest rate of not greater than 25% per annum, or, in each such case, such higher rate or rates as determined by the Issuer's Board;

(f) to determine the Redemption Price or Redemption Prices, if any, and the redemption terms, if any, for the Refunding Bonds; provided, however, that if the Refunding Bonds are to be redeemable at the election of the Issuer, the Redemption Price (except in the case

of taxable Refunding Bonds) shall not be greater than one hundred three percent (103%) of the principal amount of the Refunding Bonds to be redeemed, plus accrued interest thereon up to but not including the date of redemption and in the case of taxable Refunding Bonds the Redemption Price may be determined pursuant to provisions relating to pro rata redemption and/or make-whole redemption;

(g) to determine whether the sale of the Refunding Bonds shall be conducted on either a negotiated or competitive bid basis and, as applicable, to determine the purchase price for the Refunding Bonds to be paid by the purchaser or purchasers referred to in one or more Purchase Agreements or a bank direct purchase agreement, or the purchase price for the Refunding Bonds to be paid by the winning bidder, if such sale is conducted by competitive bid pursuant to a Notice of Sale, in either case as such document is described in Section 2.10 of this Supplemental Resolution, which may include such original issue discount and original issue premium as shall be determined in the related Certificate of Determination; provided, however, that the underwriters' discount reflected in such purchase price shall not exceed \$10.00 for each one thousand dollars (\$1,000) principal amount of the Refunding Bonds;

(h) to take all actions required for the Refunding Bonds to be eligible under the rules and regulations of The Depository Trust Company ("DTC") for investment and trading as uncertificated securities, to execute and deliver a standard form of letter of representation with DTC and, notwithstanding any provisions to the contrary contained in this Supplemental Resolution, to include in the related Certificate of Determination such terms and provisions as may be appropriate or necessary to provide for uncertificated securities in lieu of Refunding Bonds issuable in fully registered form;

(i) to determine whether to issue all or any portion of the Refunding Bonds as Tax-Exempt Obligations, Taxable Obligations, Put Obligations, Variable Interest Rate Obligations or as any other form of Obligations permitted by the Resolution and any matters related thereto, including (i) the terms and provisions of any such Obligations, (ii) the selection of remarketing agents, tender agents, auction agents, dealers, calculation agents, bidding agents or any other agents or parties to ancillary arrangements and the terms of any such arrangements, and (iii) the methods for determining the accrual of Debt Service;

(j) to determine the advisability, as compared to an unenhanced transaction, of obtaining one or more Credit Facilities, to select a provider or providers thereof and to determine and accept the terms and provisions and price thereof, to determine such other matters related thereto as in the opinion of the officer executing the related Certificate of Determination shall be considered necessary or appropriate and to effect such determinations by making any changes in or additions to this Supplemental Resolution required by Credit Facility providers, if any, or required by a Rating Agency in order to attain or maintain specific ratings on the Refunding Bonds, or relating to the mechanisms for the repayment of amounts advanced thereunder or payment of fees, premiums, expenses or any other amounts, notices, the provision of information, and such other matters of a technical, mechanical, procedural or descriptive nature necessary or appropriate to obtain or implement a Credit Facility with respect to the Refunding Bonds, and to make any changes in connection therewith;

(k) to make such changes in or from the form of this Supplemental Resolution as may be required by a Rating Agency in order to attain or maintain specific ratings on the Refunding Bonds;

(l) to make such changes in or from the form of this Supplemental Resolution as may be necessary or desirable in order to cure any ambiguities, inconsistencies or other defects;

(m) to determine whether to (i) enter into an escrow agreement or other arrangement in connection with the issuance of Refunding Bonds, including the selection of escrow agents, verification agents and the manner of determining specified matters relating to the defeasance of the refunded obligations and (ii) purchase SLGs or open market securities and the form and substance thereof and any related investment agreement, and to determine the application of any amounts released in connection with any such refunding;

(n) to determine that fixed rate Refunding Bonds comply with all Board policies relating to the issuance of refunding obligations in effect at the time of such determination;

(o) to determine that Refunding Bonds issued as Variable Interest Rate Obligations comply with all Board policies relating to Refunding Bonds relating to the issuance of refunding obligations in effect at the time of such determination as if such bonds were issued as fixed rate Refunding Bonds; and

(p) to determine such other matters specified in or permitted by (i) Sections 202, 203, 204 and A-201 of the Resolution or (ii) this Supplemental Resolution, and to determine matters relating to the payment or defeasance of Obligation Anticipation Notes, including preparation of any documentation therefor.

2. Any Authorized Officer shall execute one or more Certificates of Determination evidencing the determinations made pursuant to this Supplemental Resolution and any such Certificate of Determination shall be conclusive evidence of the determinations of such Authorized Officer, as stated therein. More than one Certificate of Determination may be delivered to the extent more than one Series or subseries of Refunding Bonds are delivered from time to time, or other authority is exercised under this Supplemental Resolution from time to time and each such Certificate of Determination shall be delivered to the Trustee prior to the authentication and delivery of the respective Series or subseries of Refunding Bonds by the Trustee or other documentation. Determinations set forth in any Certificate of Determination shall have the same effect as if set forth in this Supplemental Resolution. Any such Authorized Officer may exercise any authority delegated under this Supplemental Resolution from time to time following issuance of any Refunding Bonds, as appropriate for any purposes, including, in order to change interest rate modes or auction periods, if any Refunding Bonds shall consist of multiple subseries, to change the principal amounts and number of the individual subseries or to combine all subseries into a single Series, if any Refunding Bonds consist of a single Series, to divide such Series into two or more subseries and to determine the principal amount of such subseries, obtain a substitute or additional Credit Facility, enter into a bank direct purchase

agreement or similar instrument, or to appoint new or additional agents or other parties deemed appropriate to a particular form or mode of Obligation or manner of sale.

Section 2.10. Sale of Refunding Bonds. Each Authorized Officer is hereby authorized either (i) to sell and award all or any portion of the Refunding Bonds through a competitive bidding process to purchasers meeting the requirements of one or more Notices of Sale (as hereinafter defined) to be published in order to give notice of the competitive sale of the Refunding Bonds; (ii) to sell and award all or any portion of the Refunding Bonds through a negotiated sale to the purchasers who are referred to in the bond purchase agreement and who shall be selected from the then current list of approved underwriters; or (iii) to sell and award all or any portion of the Refunding Bonds through a direct sale to the financial institution or institutions selected by the Authorized Officer who shall be referred to in the continuing covenant, direct purchase or similar agreement. Each Authorized Officer is hereby authorized to sell and award the Refunding Bonds to the purchasers referred to in the preceding sentence in the case of a bond purchase agreement, in substantially the form most recently executed or delivered by the Issuer in connection with the sale of Obligations, or, with respect to a continuing covenant, direct purchase or similar agreement, containing bank facility terms and provisions (including, without limitation, increased costs, term-out, events of default and remedies) in substantially the form set forth in a letter of credit reimbursement agreement most recently executed or delivered by the Issuer, including, if applicable, that the direct purchaser offer to the Issuer a term-out provision of no less than five years, with such revisions to reflect the terms and provisions of the Refunding Bonds as may be approved by the officer executing the bond purchase, continuing covenant or similar agreement (each, a "Purchase Agreement"). Each Authorized Officer is hereby authorized to agree to the selection of the representative of the underwriters or the other purchasers or facility providers as referred to in the Purchase Agreement or Agreements and to execute and deliver the Purchase Agreement or Agreements for and on behalf and in the name of the Issuer with such changes, omissions, insertions and revisions as may be approved by the officer executing the Purchase Agreement or Agreements, said execution being conclusive evidence of such approval and concurrence in the selection of the representative of the underwriters..

If it is determined that any sale of Bonds shall be conducted on a competitive bid basis, each Authorized Officer is hereby further authorized to conduct the sale and award of the Refunding Bonds on the basis of a competitive bid, pursuant to the terms of a notice of sale, including bid form (the "Notice of Sale"), in a form, including any limitations on permitted bidders and a description of the basis for determining the winning bidder or bidders, determined by such Authorized Officer. Each Authorized Officer is hereby authorized to conduct such competitive sale of the Refunding Bonds in a manner consistent with this Supplemental Resolution and to utilize the services of the Authority's financial advisor and the services of an electronic bidding service, as such Authorized Officer shall determine, and the execution by such Authorized Officer of a letter of award shall be conclusive evidence of such award.

Each Authorized Officer is hereby authorized to make public and to authorize the use and distribution by said purchasers or other appropriate parties of a preliminary official statement, offering circular, or other disclosure document (the "Preliminary Official Statement") in connection with each public offering or any private placement of the Refunding Bonds, in substantially the form most recently executed or delivered by the Issuer in connection with the

sale of Obligations, with such changes, omissions, insertions and revisions as such officer shall deem advisable. The Issuer authorizes any of said officers to deliver a certification to the effect that such Preliminary Official Statement or Official Statement, if deemed necessary or appropriate, together with such other documents, if any, described in such certificate, was deemed final as of its date for purposes of Rule 15c2-12 of the Securities and Exchange Commission as applicable.

Each Authorized Officer is hereby authorized to make public and to authorize distribution of a final Official Statement in substantially the form of each Preliminary Official Statement or the most recently executed and delivered Official Statement if there is not a Preliminary Official Statement, with such changes, omissions, insertions and revisions as such officer shall deem advisable, to sign such Official Statement and to deliver such Official Statement to the purchasers of such issue of the Refunding Bonds, such execution being conclusive evidence of the approval of such changes, omissions, insertions and revisions.

Each Authorized Officer is hereby authorized to execute and deliver for and on behalf and in the name of the Issuer, to the extent determined by such Authorized Officer to be necessary or convenient, a Continuing Disclosure Agreement, substantially in the form appended to the Purchase Agreement or Notice of Sale, with such changes, omissions, insertions and revisions as such officer shall deem advisable (the "Continuing Disclosure Agreement"), said execution being conclusive evidence of the approval of such changes, omissions, insertions and revisions.

The proceeds of each good faith check, if any, received by the Issuer from the purchasers of each issue of Refunding Bonds under the terms of the related Purchase Agreement or Notice of Sale may be invested by the Issuer pending application of the proceeds of such good faith check for the purposes provided in Section 2.02 of this Supplemental Resolution at the time of the issuance and delivery of such Refunding Bonds.

Each Authorized Officer (including any Assistant Secretary of the Issuer) is hereby authorized and directed to execute, deliver, amend, replace or terminate any and all documents and instruments (including any remarketing agreements, dealer agreements, broker-dealer agreements, tender agent agreements, or auction agency agreements, any escrow agreements, any investment agreements or arrangements, or any reimbursement agreements or documents or instruments relating to a Credit Facility deemed appropriate to a given form or mode of an Obligation) and to do and cause to be done any and all acts necessary or proper for carrying out each Purchase Agreement or Notice of Sale, each Continuing Disclosure Agreement, the terms of any Credit Facility or other such agreement or arrangement, and the issuance, sale and delivery of each issue of the Refunding Bonds and for implementing the terms of each issue of the Refunding Bonds and the transactions contemplated hereby or thereby.

When reference is made in this Supplemental Resolution to the authorization of an Authorized Officer to do any act, such act may be accomplished by any of such officers individually.

Section 2.11. Forms of Refunding Bonds and Trustee's Authentication Certificate. Subject to the provisions of the Resolution, the form of registered Refunding Bonds, and the

Trustee's certificate of authentication, shall be substantially in the form set forth in Exhibit One to the Resolution including, if necessary, any changes to comply with the requirements of DTC or the provisions of this Supplemental Resolution or any Certificate of Determination.

Section 2.12. Appointment of Trustee and Paying Agent. Unless otherwise provided by Certificate of Determination, The Bank of New York Mellon, as successor in interest to JPMorgan Chase Bank, N.A. shall be the Trustee under the Resolution and the Paying Agent for the Refunding Bonds.

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ARTICLE III

DISPOSITION OF REFUNDING BOND PROCEEDS

Section 3.01. Disposition of Refunding Bond Proceeds. Any proceeds of the sale of the Refunding Bonds, other than accrued interest, if any, shall be deposited, simultaneously with the issuance and delivery of the Refunding Bonds, at one time or from time to time in one or more Series or subseries, in the Proceeds Account which is deemed to be established for each Series in the Proceeds Fund to be applied, or shall otherwise be applied pursuant to a Certificate of Determination to:

(a) the refunding of any Obligations, Parity Debt or Cross-Credit Obligations, or portions of any of them, in accordance with Section 2.02 hereof; and

(b) the balance of such proceeds, exclusive of accrued interest, shall be deposited in the Costs of Issuance Account and applied to the payment of Costs of Issuance or otherwise applied to the payment of Costs of Issuance.

Unless otherwise provided in a Certificate of Determination, the accrued interest, if any, and any capitalized interest received on the sale of the Refunding Bonds shall be deposited in the Debt Service Fund.

ARTICLE IV

TAX COVENANTS AND DEFEASANCE

Section 4.01. Tax Covenants Relating to the Refunding Bonds. The Issuer covenants that, in order to maintain the exclusion from gross income for Federal income tax purposes of the interest on the Refunding Bonds issued as Tax-Exempt Obligations, the Issuer will satisfy, or take such actions as are necessary to cause to be satisfied, each provision of the Code necessary to maintain such exclusion. In furtherance of this covenant, the Issuer agrees to comply with such written instructions as may be provided by Bond Counsel. In furtherance of the covenant contained in the preceding sentence, the Issuer agrees to continually comply with the provisions of any "Arbitrage and Use of Proceeds Certificate" or "Tax Certificate" to be executed by the Issuer in connection with the execution and delivery of any Refunding Bonds issued as Tax-Exempt Obligations, as amended from time to time.

Notwithstanding any other provision of the Resolution to the contrary, upon the Issuer's failure to observe, or refusal to comply with, the above covenant (a) the Owners of the Refunding Bonds, or the Trustee acting on their behalf, shall be entitled to the rights and remedies provided to Owners or the Trustee under Section 702 of the Resolution, and (b) neither the Owners of the Obligations of any Series or holders of any Parity Debt (other than the Refunding Bonds or the Trustee acting on their behalf), nor the Trustee acting on their behalf, shall be entitled to exercise any right or remedy provided to the Owners, the Parity Debt holders or the Trustee under the Resolution based upon the Issuer's failure to observe, or refusal to comply with, the above covenant.

The provisions of the foregoing covenants set forth in this Section shall not apply to any Refunding Bonds, including any subseries thereof, which the Issuer determines pursuant to the applicable Certificate of Determination to issue as Taxable Obligations.

Section 4.02. Defeasance. In the event the Issuer shall seek, prior to the maturity or redemption date thereof, to pay or cause to be paid, within the meaning and with the effect expressed in the Resolution, all or less than all Outstanding Refunding Bonds issued as Tax-Exempt Obligations and the provisions of Section 4.01 hereof shall then be of any force or effect, then, notwithstanding the provisions of Article A-XI of the Resolution, the Refunding Bonds issued as Tax-Exempt Obligations which the Issuer then seeks to pay or cause to be paid shall not be deemed to have been paid within the meaning and with the effect expressed in Section A-1101 of the Resolution unless (i) the Issuer has confirmed in writing that the Owners of the Refunding Bonds issued as Tax-Exempt Obligations which the Issuer then seeks to pay or cause to be paid will continue, after such action, to have the benefit of a covenant to the effect of the covenant of the Issuer contained in Section 4.01 hereof or (ii) there shall have been delivered to the Trustee an Opinion of Bond Counsel to the effect that non-compliance thereafter with the applicable provisions of the Code will not affect the then current treatment of interest on the Refunding Bonds issued as Tax-Exempt Obligations in determining gross income for Federal income tax purposes.

METROPOLITAN TRANSPORTATION AUTHORITY

**MULTIPLE SERIES
DEDICATED TAX FUND REFUNDING BOND
SUPPLEMENTAL RESOLUTION**

Adopted December 14, 2016

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**MULTIPLE SERIES
DEDICATED TAX FUND REFUNDING BOND
SUPPLEMENTAL RESOLUTION**

BE IT RESOLVED by the Metropolitan Transportation Authority (the “Issuer”), as follows:

ARTICLE I

DEFINITIONS AND STATUTORY AUTHORITY

Section 1.01. Supplemental Resolution. This resolution is supplemental to, and is adopted in accordance with Article II and Article A-VIII of, a resolution of the Issuer adopted on March 26, 2002, entitled “Dedicated Tax Fund Obligation Resolution” (the “Resolution”).

Section 1.02. Definitions.

1. All capitalized terms which are used but not otherwise defined in this Multiple Series Dedicated Tax Fund Refunding Bond Supplemental Resolution (the “Supplemental Resolution”) shall have the same meanings, respectively, as such terms are given by Section 102 of the Resolution.

2. In this Supplemental Resolution:

“Authorized Officer” shall include the officers designated as such in the Resolution, and the Chairman and Chief Executive Officer, the Chair of the Finance Committee, the Vice Chairman, the Chief Financial Officer or the Director, Finance, as well as any officer duly designated as “Acting” in said officer’s capacity, except that, for the purposes of any delegation set forth herein that does not expressly include any Assistant Secretary, “Authorized Officer” shall not include any Assistant Secretary of the Issuer.

“Board” shall mean the members of the Issuer acting as such pursuant to the provisions of the Issuer Act.

“Bond Counsel” shall mean Nixon Peabody LLP, Orrick, Herrington & Sutcliffe LLP, D. Seaton and Associates, P.A., P.C., Bryant Rabbino LLP or any other attorney or firm of attorneys of nationally recognized standing in the field of law relating to the issuance of obligations by state and municipal entities, selected by the Issuer.

“Code” shall mean the Internal Revenue Code of 1986, as amended, and regulations thereunder.

“Cross-Credit Obligations” shall mean indebtedness or other obligations issued or incurred by the Issuer or any other Related Entity as described in clause (iii) of the definition of “Capital Costs”, but excluding Obligations.

“Refunding Bonds” shall mean the Dedicated Tax Fund Bonds authorized by Article II of this Supplemental Resolution in one or more Series or subseries.

Section 1.03. Authority for this Supplemental Resolution. This Supplemental Resolution is adopted pursuant to the provisions of the Issuer Act and the Resolution.

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ARTICLE II

AUTHORIZATION OF REFUNDING BONDS

Section 2.01. Authorized Principal Amount, Designation and Series.

1. Pursuant to the provisions of the Resolution and in order to issue (a) Refunding Obligations, and (b) Obligations for the purpose of refunding Cross-Credit Obligations, multiple Series of Dedicated Tax Fund Obligations (which may be issued at one time or from time to time in any number of Series or subseries, which for purposes of this Supplemental Resolution shall collectively be referred to herein as the “Refunding Bonds”, subject to redesignation as hereinafter provided) entitled to the benefit, protection and security of such provisions are hereby authorized to be issued in an aggregate principal amount not exceeding the principal amount necessary so that, after giving effect to any net original issue discount or premium and underwriters’ discount from the principal amount, the amount to be deposited in the Proceeds Account pursuant to, or otherwise applied to effectuate the purposes of, Section 2.02 and Section 3.01 of this Supplemental Resolution (exclusive of the amount so deposited therein determined in any Certificate of Determination as estimated to be necessary to pay any Costs of Issuance of the Refunding Bonds payable from such Proceeds Account or otherwise applied to pay such Costs of Issuance), shall not exceed the amount or amounts determined in one or more Certificates of Determination to be necessary to effectuate the purposes set forth in Section 2.02 hereof; provided, however, that any Refunding Bonds issued pursuant to this Supplemental Resolution shall be issued in compliance with any Board policies relating to the issuance of refunding bonds as may be in effect from time to time.

2. Nothing in this Supplemental Resolution is intended to preclude the issuance of Refunding Bonds as refunding obligations in accordance with Section 203 of the Resolution.

Refunding Bonds shall be designated as, and shall be distinguished from the Obligations of all other Series by the title, “Dedicated Tax Fund Bonds, Series [insert calendar year of issuance]” or such other title or titles set forth in the related Certificate of Determination.

The authority to issue Obligations and take related actions granted under previous resolutions of the Issuer shall continue in full force and effect. The authorization to issue the Refunding Bonds and take other related actions hereunder shall continue in effect without any further action by the Issuer until the adoption by the MTA Board of a subsequent refunding bond supplemental resolution relating to 2018 refundings.

Section 2.02. Purposes. The purposes for which the Refunding Bonds are issued shall be set forth in one or more Certificates of Determination and may include the refunding, restructuring or payment, including by purchasing, exchanging or tendering therefor, of all or any portion of any Outstanding Obligations or Parity Debt or Cross-Credit Obligations deemed advisable by an Authorized Officer in accordance with Section 203 or 204 of the Resolution, as applicable.

Section 2.03. Dates, Maturities, Principal Amounts and Interest. The Refunding Bonds, except as otherwise provided in the Resolution, shall be dated the date or dates determined in the related Certificate of Determination. The Refunding Bonds shall mature on the date or dates and in the year or years and principal amount or amounts, and shall bear interest at the rate or rates per annum, if any, specified in or determined in the manner provided in the related Certificate of Determination.

Section 2.04. Interest Payments. The Refunding Bonds shall bear interest from their date or dates and be payable on such date or dates as may be determined pursuant to the related Certificate of Determination. Except as otherwise provided in the related Certificate of Determination, interest on the Refunding Bonds shall be computed on the basis of twelve 30-day months and a 360-day year.

Section 2.05. Denominations, Numbers and Letters. Unless otherwise provided in the related Certificate of Determination, the Refunding Bonds shall be issued in fully registered form without coupons in the denomination of \$5,000 or any integral multiple thereof.

The Refunding Bonds shall be lettered and numbered as provided in the related Certificate of Determination.

Section 2.06. Places of Payment and Paying Agent. Except as otherwise provided in the related Certificate of Determination, principal and Redemption Price of the Refunding Bonds shall be payable to the registered owner of each Refunding Bond when due upon presentation of such Refunding Bond at the principal corporate trust office of the Trustee. Except as otherwise provided in the related Certificate of Determination, interest on the registered Refunding Bonds will be paid by check or draft mailed on the interest payment date by the Paying Agent, to the registered owner at his address as it appears on the registration books or, at the option of any Owner of at least one million dollars (\$1,000,000) in principal amount of the Refunding Bonds, by wire transfer in immediately available funds on each interest payment date to such Owner thereof upon written notice from such Owner to the Trustee, at such address as the Trustee may from time to time notify such Owner, containing the wire transfer address (which shall be in the continental United States) to which such Owner wishes to have such wire directed, if such written notice is received not less than twenty (20) days prior to the related interest payment date (such notice may refer to multiple interest payments).

Section 2.07. Sinking Fund Installments. The Refunding Bonds, if any, determined in the related Certificate of Determination shall be subject to redemption (a) in part, by lot, (b) pro rata (in the case of taxable Refunding Bonds), or (c) otherwise as determined in accordance with Section A-404 of the Resolution, as set forth in the Certificate of Determination, on each date in the year or years determined in the Certificate of Determination at the principal amount thereof plus accrued interest up to but not including the date of redemption thereof, from mandatory Sinking Fund Installments which are required to be made in amounts sufficient to redeem on each such date the principal amount of such Refunding Bonds.

Section 2.08. Redemption Prices and Terms. The Refunding Bonds may also be subject to redemption prior to maturity, at the option of the Issuer, upon notice as provided in Article A-IV of the Resolution, at any time as a whole or in part (and by lot within a maturity, or

otherwise as determined in accordance with Section A-404 of the Resolution, if less than all of a maturity is to be redeemed), from maturities designated by the Issuer on and after the date and in the years and at the Redemption Prices (expressed as a percentage of principal amount) determined in the related Certificate of Determination, plus accrued interest up to but not including the redemption date. Notwithstanding the foregoing, in the case of taxable Refunding Bonds, if set forth in the Certificate of Determination, the taxable Refunding Bonds may be made subject to pro rata redemption and/or a make-whole redemption premium.

Section 2.09. Delegation to an Authorized Officer. 1. There is hereby delegated to each Authorized Officer, subject to the limitations contained in this Supplemental Resolution, the following powers with respect to the Refunding Bonds:

(a) to determine whether and when to issue any Refunding Bonds constituting Refunding Obligations or Obligations issued to refund Cross-Credit Obligations, and to determine the amount of the proceeds of the Refunding Bonds to be applied to refunding purposes as well as the specific Obligations or Parity Debt or Cross-Credit Obligations, or portions of either to be refunded and the date or dates, if any, on which such refunded obligations shall be redeemed, and the amount of the proceeds of the Refunding Bonds estimated to be necessary to pay the Costs of Issuance of the Refunding Bonds;

(b) to determine the purpose or purposes for which the Refunding Bonds are being issued, which shall be one or more of the purposes set forth in Section 2.02 of this Supplemental Resolution;

(c) to determine the principal amounts of the Refunding Bonds to be issued for the purposes set forth in Section 2.02 of this Supplemental Resolution and whether such principal amounts constitute a separate Series or a subseries of Refunding Bonds, and to determine Accreted Values and Appreciated Values, if applicable;

(d) to determine the maturity date and principal amount of each maturity of the Refunding Bonds and the amount and due date of each Sinking Fund Installment, if any;

(e) to determine the date or dates which the Refunding Bonds shall be dated and the interest rate or rates of the Refunding Bonds or the manner of determining such interest rate or rates; provided, however, that any Obligations issued as fixed rate Tax-Exempt Obligations shall be subject to a maximum interest rate of not greater than 10% per annum, any Obligations issued as fixed rate Taxable Obligations shall be subject to a maximum interest rate of not greater than 12% per annum, any Variable Interest Rate Obligations issued as Tax-Exempt Obligations shall be subject to a maximum interest rate of not greater than 15% per annum, any Variable Interest Rate Obligations issued as Taxable Obligations shall be subject to a maximum interest rate of not greater than 18% per annum and any Parity Reimbursement Obligations shall be subject to a maximum interest rate of not greater than 25% per annum, or, in each such case, such higher rate or rates as determined by the Issuer's Board;

(f) to determine the Redemption Price or Redemption Prices, if any, and the redemption terms, if any, for the Refunding Bonds; provided, however, that if the Refunding Bonds are to be redeemable at the election of the Issuer, the Redemption Price (except in the case

of taxable Refunding Bonds) shall not be greater than one hundred three percent (103%) of the principal amount of the Refunding Bonds to be redeemed, plus accrued interest thereon up to but not including the date of redemption and in the case of taxable Refunding Bonds the Redemption Price may be determined pursuant to provisions relating to pro rata redemption and/or make whole redemption;

(g) to determine whether the sale of the Refunding Bonds shall be conducted on either a negotiated or competitive bid basis and, as applicable, to determine the purchase price for the Refunding Bonds to be paid by the purchaser or purchasers referred to in one or more Purchase Agreements or a bank direct purchase agreement, or the purchase price for the Refunding Bonds to be paid by the winning bidder, if such sale is conducted by competitive bid pursuant to a Notice of Sale, in either case as such document is described in Section 2.10 of this Supplemental Resolution, which may include such original issue discount and original issue premium as shall be determined in the related Certificate of Determination; provided, however, that the underwriters' discount reflected in such purchase price shall not exceed \$10.00 for each one thousand dollars (\$1,000) principal amount of the Refunding Bonds;

(h) to take all actions required for the Refunding Bonds to be eligible under the rules and regulations of The Depository Trust Company ("DTC") for investment and trading as uncertificated securities, to execute and deliver a standard form of letter of representation with DTC and, notwithstanding any provisions to the contrary contained in this Supplemental Resolution, to include in the related Certificate of Determination such terms and provisions as may be appropriate or necessary to provide for uncertificated securities in lieu of Refunding Bonds issuable in fully registered form;

(i) to determine whether to issue all or any portion of the Refunding Bonds as Tax-Exempt Obligations, Taxable Obligations, Put Obligations, Variable Interest Rate Obligations or as any other form of Obligations permitted by the Resolution and any matters related thereto, including (i) the terms and provisions of any such Obligations, (ii) the selection of remarketing agents, tender agents, auction agents, dealers, calculation agents, bidding agents or any other agents or parties to ancillary arrangements and the terms of any such arrangements, and (iii) the methods for determining the accrual of Debt Service;

(j) to determine the advisability, as compared to an unenhanced transaction, of obtaining one or more Credit Facilities, to select a provider or providers thereof and to determine and accept the terms and provisions and price thereof, to determine such other matters related thereto as in the opinion of the officer executing the related Certificate of Determination shall be considered necessary or appropriate and to effect such determinations by making any changes in or additions to this Supplemental Resolution required by Credit Facility providers, if any, or required by a Rating Agency in order to attain or maintain specific ratings on the Refunding Bonds, or relating to the mechanisms for the repayment of amounts advanced thereunder or payment of fees, premiums, expenses or any other amounts, notices, the provision of information, and such other matters of a technical, mechanical, procedural or descriptive nature necessary or appropriate to obtain or implement a Credit Facility with respect to the Refunding Bonds, and to make any changes in connection therewith;

(k) to make such changes in or from the form of this Supplemental Resolution as may be required by a Rating Agency in order to attain or maintain specific ratings on the Refunding Bonds;

(l) to make such changes in or from the form of this Supplemental Resolution as may be necessary or desirable in order to cure any ambiguities, inconsistencies or other defects;

(m) to determine whether to (i) enter into an escrow agreement or other arrangement in connection with the issuance of Refunding Bonds, including the selection of escrow agents, verification agents and the manner of determining specified matters relating to the defeasance of the refunded obligations and (ii) purchase SLGs or open market securities and the form and substance thereof and any related investment agreement, and to determine the application of any amounts released in connection with any such refunding;

(n) to determine that fixed rate Refunding Bonds comply with all Board policies relating to the issuance of refunding obligations in effect at the time of such determination;

(o) to determine that Refunding Bonds issued as Variable Interest Rate Obligations comply with all Board policies relating to Refunding Bonds relating to the issuance of refunding obligations in effect at the time of such determination as if such bonds were issued as fixed rate Refunding Bonds; and

(p) to determine such other matters specified in or permitted by (i) Sections 202, 203, 204 and A-201 of the Resolution or (ii) this Supplemental Resolution, and to determine matters relating to the payment or defeasance of Obligation Anticipation Notes, including preparation of any documentation therefor.

2. Any Authorized Officer shall execute one or more Certificates of Determination evidencing the determinations made pursuant to this Supplemental Resolution and any such Certificate of Determination shall be conclusive evidence of the determinations of such Authorized Officer, as stated therein. More than one Certificate of Determination may be delivered to the extent more than one Series or subseries of Refunding Bonds are delivered from time to time, or other authority is exercised under this Supplemental Resolution from time to time and each such Certificate of Determination shall be delivered to the Trustee prior to the authentication and delivery of the respective Series or subseries of Refunding Bonds by the Trustee or other documentation. Determinations set forth in any Certificate of Determination shall have the same effect as if set forth in this Supplemental Resolution. Any such Authorized Officer may exercise any authority delegated under this Supplemental Resolution from time to time following issuance of any Refunding Bonds, as appropriate for any purposes, including, in order to change interest rate modes or auction periods, if any Refunding Bonds shall consist of multiple subseries, to change the principal amounts and number of the individual subseries or to combine all subseries into a single Series, if any Refunding Bonds consist of a single Series, to divide such Series into two or more subseries and to determine the principal amount of such subseries, obtain a substitute or additional Credit Facility, enter into a bank direct purchase

agreement or similar instrument or to appoint new or additional agents or other parties deemed appropriate to a particular form or mode of Obligation or manner of sale.

Section 2.10. Sale of Refunding Bonds. Each Authorized Officer is hereby authorized either (i) to sell and award all or any portion of the Refunding Bonds through a competitive bidding process to purchasers meeting the requirements of one or more Notices of Sale (as hereinafter defined) to be published in order to give notice of the competitive sale of the Refunding Bonds; (ii) to sell and award all or any portion of the Refunding Bonds through a negotiated sale to the purchasers who are referred to in the bond purchase agreement and who shall be selected from the then current list of approved underwriters; or (iii) to sell and award all or any portion of the Refunding Bonds through a direct sale to the financial institution or institutions selected by the Authorized Officer who shall be referred to in the continuing covenant, direct purchase or similar agreement. Each Authorized Officer is hereby authorized to sell and award the Refunding Bonds to the purchasers referred to in the preceding sentence in the case of a bond purchase agreement, in substantially the form most recently executed or delivered by the Issuer in connection with the sale of Obligations, or, with respect to a continuing covenant, direct purchase or similar agreement, containing bank facility terms and provisions (including, without limitation, increased costs, term-out, events of default and remedies) in substantially the form set forth in a letter of credit reimbursement agreement most recently executed or delivered by the Issuer, including, if applicable, that the direct purchaser offer to the Issuer a term-out provision of no less than five years, with such revisions to reflect the terms and provisions of the Refunding Bonds as may be approved by the officer executing the bond purchase, continuing covenant or similar agreement (each, a "Purchase Agreement"). Each Authorized Officer is hereby authorized to agree to the selection of the representative of the underwriters or the other purchasers or facility providers as referred to in the Purchase Agreement or Agreements and to execute and deliver the Purchase Agreement or Agreements for and on behalf and in the name of the Issuer with such changes, omissions, insertions and revisions as may be approved by the officer executing the Purchase Agreement or Agreements, said execution being conclusive evidence of such approval and concurrence in the selection of the representative of the underwriters.

If it is determined that any sale of Bonds shall be conducted on a competitive bid basis, each Authorized Officer is hereby further authorized to conduct the sale and award of the Refunding Bonds on the basis of a competitive bid, pursuant to the terms of a notice of sale, including bid form (the "Notice of Sale"), in a form, including any limitations on permitted bidders and a description of the basis for determining the winning bidder or bidders, determined by such Authorized Officer. Each Authorized Officer is hereby authorized to conduct such competitive sale of the Refunding Bonds in a manner consistent with this Supplemental Resolution and to utilize the services of the Authority's financial advisor and the services of an electronic bidding service, as such Authorized Officer shall determine, and the execution by such Authorized Officer of a letter of award shall be conclusive evidence of such award.

Each Authorized Officer is hereby authorized to make public and to authorize the use and distribution by said purchasers or other appropriate parties of a preliminary official statement, offering circular, or other disclosure document (the "Preliminary Official Statement") in connection with each public offering or any private placement of the Refunding Bonds, in substantially the form most recently executed or delivered by the Issuer in connection with the

sale of Obligations, with such changes, omissions, insertions and revisions as such officer shall deem advisable. The Issuer authorizes any of said officers to deliver a certification to the effect that such Preliminary Official Statement or Official Statement, if deemed necessary or appropriate, together with such other documents, if any, described in such certificate, was deemed final as of its date for purposes of Rule 15c2-12 of the Securities and Exchange Commission as applicable.

Each Authorized Officer is hereby authorized to make public and to authorize distribution of a final Official Statement in substantially the form of each Preliminary Official Statement or the most recently executed and delivered Official Statement if there is not a Preliminary Official Statement, with such changes, omissions, insertions and revisions as such officer shall deem advisable, to sign such Official Statement and to deliver such Official Statement to the purchasers of such issue of the Refunding Bonds, such execution being conclusive evidence of the approval of such changes, omissions, insertions and revisions.

Each Authorized Officer is hereby authorized to execute and deliver for and on behalf and in the name of the Issuer, to the extent determined by such Authorized Officer to be necessary or convenient, a Continuing Disclosure Agreement, substantially in the form appended to the Purchase Agreement or Notice of Sale, with such changes, omissions, insertions and revisions as such officer shall deem advisable (the "Continuing Disclosure Agreement"), said execution being conclusive evidence of the approval of such changes, omissions, insertions and revisions.

The proceeds of each good faith check, if any, received by the Issuer from the purchasers of each issue of Refunding Bonds under the terms of the related Purchase Agreement or Notice of Sale may be invested by the Issuer pending application of the proceeds of such good faith check for the purposes provided in Section 2.02 of this Supplemental Resolution at the time of the issuance and delivery of such Refunding Bonds.

Each Authorized Officer (including any Assistant Secretary of the Issuer) is hereby authorized and directed to execute, deliver, amend, replace or terminate any and all documents and instruments (including any remarketing agreements, dealer agreements, broker-dealer agreements, tender agent agreements, or auction agency agreements, any escrow agreements, any investment agreements or arrangements, or any reimbursement agreements or documents or instruments relating to a Credit Facility deemed appropriate to a given form or mode of an Obligation) and to do and cause to be done any and all acts necessary or proper for carrying out each Purchase Agreement or Notice of Sale, each Continuing Disclosure Agreement, the terms of any Credit Facility or other such agreement or arrangement, and the issuance, sale and delivery of each issue of the Refunding Bonds and for implementing the terms of each issue of the Refunding Bonds and the transactions contemplated hereby or thereby.

When reference is made in this Supplemental Resolution to the authorization of an Authorized Officer to do any act, such act may be accomplished by any of such officers individually.

Section 2.11. Forms of Refunding Bonds and Trustee's Authentication Certificate. Subject to the provisions of the Resolution, the form of registered Refunding Bonds, and the

Trustee's certificate of authentication, shall be substantially in the form set forth in Exhibit One to the Resolution including, if necessary, any changes to comply with the requirements of DTC or the provisions of this Supplemental Resolution or any Certificate of Determination.

Section 2.12. Appointment of Trustee and Paying Agent. Unless otherwise provided by Certificate of Determination, The Bank of New York Mellon shall be the Trustee under the Resolution and the Paying Agent for the Refunding Bonds.

ARTICLE III

DISPOSITION OF REFUNDING BOND PROCEEDS

Section 3.01. Disposition of Refunding Bond Proceeds. Any proceeds of the sale of the Refunding Bonds, other than accrued interest, if any, shall be deposited, simultaneously with the issuance and delivery of the Refunding Bonds, at one time or from time to time in one or more Series or subseries, in the Proceeds Account which is deemed to be established for each Series in the Proceeds Fund to be applied, or shall otherwise be applied pursuant to a Certificate of Determination to:

(a) the refunding of any Obligations, Parity Debt or Cross-Credit Obligations, or portions of any of them, in accordance with Section 2.02 hereof; and

(b) the balance of such proceeds, exclusive of accrued interest, shall be deposited in the COI Account and applied to the payment of Costs of Issuance or otherwise applied to the payment of Costs of Issuance.

Unless otherwise provided in a Certificate of Determination, the accrued interest, if any, and any capitalized interest, received on the sale of the Refunding Bonds shall be deposited in the Debt Service Fund.

ARTICLE IV

TAX COVENANTS AND DEFEASANCE

Section 4.01. Tax Covenants Relating to the Refunding Bonds. The Issuer covenants that, in order to maintain the exclusion from gross income for Federal income tax purposes of the interest on the Refunding Bonds issued as Tax-Exempt Obligations, the Issuer will satisfy, or take such actions as are necessary to cause to be satisfied, each provision of the Code necessary to maintain such exclusion. In furtherance of this covenant, the Issuer agrees to comply with such written instructions as may be provided by Bond Counsel. In furtherance of the covenant contained in the preceding sentence, the Issuer agrees to continually comply with the provisions of any "Arbitrage and Use of Proceeds Certificate" or "Tax Certificate" to be executed by the Issuer in connection with the execution and delivery of any Refunding Bonds issued as Tax-Exempt Obligations, as amended from time to time.

Notwithstanding any other provision of the Resolution to the contrary, upon the Issuer's failure to observe, or refusal to comply with, the above covenant (a) the Owners of the Refunding Bonds, or the Trustee acting on their behalf, shall be entitled to the rights and remedies provided to Owners or the Trustee under Section 702 of the Resolution, and (b) neither the Owners of the Obligations of any Series or holders of any Parity Debt (other than the Refunding Bonds or the Trustee acting on their behalf), nor the Trustee acting on their behalf, shall be entitled to exercise any right or remedy provided to the Owners, the Parity Debt holders or the Trustee under the Resolution based upon the Issuer's failure to observe, or refusal to comply with, the above covenant.

The provisions of the foregoing covenants set forth in this Section shall not apply to any Refunding Bonds, including any subseries thereof, which the Issuer determines pursuant to the applicable Certificate of Determination to issue as Taxable Obligations.

Section 4.02. Defeasance. In the event the Issuer shall seek, prior to the maturity or redemption date thereof, to pay or cause to be paid, within the meaning and with the effect expressed in the Resolution, all or less than all Outstanding Refunding Bonds issued as Tax-Exempt Obligations and the provisions of Section 4.01 hereof shall then be of any force or effect, then, notwithstanding the provisions of Article A-XI of the Resolution, the Refunding Bonds issued as Tax-Exempt Obligations which the Issuer then seeks to pay or cause to be paid shall not be deemed to have been paid within the meaning and with the effect expressed in Section A-1101 of the Resolution unless (i) the Issuer has confirmed in writing that the Owners of the Refunding Bonds issued as Tax-Exempt Obligations which the Issuer then seeks to pay or cause to be paid will continue, after such action, to have the benefit of a covenant to the effect of the covenant of the Issuer contained in Section 4.01 hereof or (ii) there shall have been delivered to the Trustee an Opinion of Bond Counsel to the effect that non-compliance thereafter with the applicable provisions of the Code will not affect the then current treatment of interest on the Refunding Bonds issued as Tax-Exempt Obligations in determining gross income for Federal income tax purposes.

TRIBOROUGH BRIDGE AND TUNNEL AUTHORITY

**MULTIPLE SERIES
GENERAL REVENUE REFUNDING BOND
SUPPLEMENTAL RESOLUTION**

Adopted December 14, 2016

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**MULTIPLE SERIES
GENERAL REVENUE REFUNDING BOND
SUPPLEMENTAL RESOLUTION**

BE IT RESOLVED by the Triborough Bridge and Tunnel Authority (the “Issuer”), as follows:

ARTICLE I

DEFINITIONS AND STATUTORY AUTHORITY

Section 1.01. Supplemental Resolution. This resolution is supplemental to, and is adopted in accordance with Article II and Article A-VIII of, a resolution of the Issuer adopted on March 26, 2002, entitled “General Resolution Authorizing General Revenue Obligations” (the “Resolution”).

Section 1.02. Definitions.

1. All capitalized terms which are used but not otherwise defined in this Multiple Series General Revenue Refunding Bond Supplemental Resolution (the “Supplemental Resolution”) shall have the same meanings, respectively, as such terms are given by Section 102 of the Resolution.

2. In this Supplemental Resolution:

“Authorized Officer” shall include the officers designated as such in the Resolution, and the Chairman and Chief Executive Officer, the Chair of the Finance Committee, the Vice Chairman, the Chief Financial Officer or the Director, Finance, as well as any officer duly designated as “Acting” in said officer’s capacity, except that, for the purposes of any delegation set forth herein that does not expressly include any Assistant Secretary, “Authorized Officer” shall not include any Assistant Secretary of the Issuer.

“Board” shall mean, when used with respect to the Issuer, the board of the Issuer acting as such pursuant to the provisions of the Issuer Act, and when used with respect to the MTA, the members of the MTA acting as such pursuant to the provisions of the MTA Act.

“Bond Counsel” shall mean Nixon Peabody LLP, Orrick, Herrington & Sutcliffe LLP, D. Seaton and Associates, P.A., P.C., Bryant Rabbino LLP or any other attorney or firm of attorneys of nationally recognized standing in the field of law relating to the issuance of obligations by state and municipal entities, selected by the Issuer.

“Code” shall mean the Internal Revenue Code of 1986, as amended, and regulations thereunder.

“Cross-Credit Obligations” shall mean indebtedness or other obligations issued or incurred by the Issuer or any other Related Entity as described in clause (iii) of the definition of “Capital Costs”, but excluding Obligations.

“Refunding Bonds” shall mean the General Revenue Bonds authorized by Article II of this Supplemental Resolution in one or more Series or subseries.

Section 1.03. Authority for this Supplemental Resolution. This Supplemental Resolution is adopted pursuant to the provisions of the Issuer Act and the Resolution.

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ARTICLE II

AUTHORIZATION OF REFUNDING BONDS

Section 2.01. Authorized Principal Amount, Designation and Series.

1. Pursuant to the provisions of the Resolution and in order to issue (a) Refunding Obligations, and (b) Obligations for the purpose of refunding Cross-Credit Obligations, multiple Series of General Revenue Obligations (which may be issued at one time or from time to time in any number of Series or subseries, which for purposes of this Supplemental Resolution shall collectively be referred to herein as the “Refunding Bonds”, subject to redesignation as hereinafter provided) entitled to the benefit, protection and security of such provisions are hereby authorized to be issued in an aggregate principal amount not exceeding the principal amount necessary so that, after giving effect to any net original issue discount or premium and underwriters’ discount from the principal amount, the amount to be deposited in the Proceeds Account pursuant to, or otherwise applied to effectuate the purposes of, Section 2.02 and Section 3.01 of this Supplemental Resolution (exclusive of the amount so deposited therein determined in any Certificate of Determination as estimated to be necessary to pay any Costs of Issuance of the Refunding Bonds payable from such Proceeds Account or otherwise applied to pay such Costs of Issuance), shall not exceed the amount or amounts determined in one or more Certificates of Determination to be necessary to effectuate the purposes set forth in Section 2.02 hereof; provided, however, that any Refunding Bonds issued pursuant to this Supplemental Resolution shall be issued in compliance with any Board policies relating to the issuance of refunding bonds as may be in effect from time to time.

2. Nothing in this Supplemental Resolution is intended to preclude the issuance of Refunding Bonds as refunding obligations in accordance with Section 203 of the Resolution.

Refunding Bonds shall be designated as, and shall be distinguished from the Obligations of all other Series by the title, “General Revenue Bonds, Series [insert calendar year of issuance]” or such other title or titles set forth in the related Certificate of Determination.

The authority to issue Obligations and take related actions granted under previous resolutions of the Issuer shall continue in full force and effect. The authorization to issue the Refunding Bonds and take other related actions hereunder shall continue in effect without any further action by the Issuer until the adoption by the Issuer Board of a subsequent refunding bond supplemental resolution relating to 2018 refundings.

Section 2.02. Purposes. The purposes for which the Refunding Bonds are issued shall be set forth in one or more Certificates of Determination and may include the refunding, restructuring or payment, including by purchasing, exchanging or tendering therefor, of all or any portion of any Outstanding Obligations or Parity Debt or Cross-Credit Obligations deemed advisable by an Authorized Officer in accordance with Section 203 or 204 of the Resolution, as applicable.

Section 2.03. Dates, Maturities, Principal Amounts and Interest. The Refunding Bonds, except as otherwise provided in the Resolution, shall be dated the date or dates determined in the related Certificate of Determination. The Refunding Bonds shall mature on the date or dates and in the year or years and principal amount or amounts, and shall bear interest at the rate or rates per annum, if any, specified in or determined in the manner provided in the related Certificate of Determination.

Section 2.04. Interest Payments. The Refunding Bonds shall bear interest from their date or dates and be payable on such date or dates as may be determined pursuant to the related Certificate of Determination. Except as otherwise provided in the related Certificate of Determination, interest on the Refunding Bonds shall be computed on the basis of twelve 30-day months and a 360-day year.

Section 2.05. Denominations, Numbers and Letters. Unless otherwise provided in the related Certificate of Determination, the Refunding Bonds shall be issued in fully registered form without coupons in the denomination of \$5,000 or any integral multiple thereof.

The Refunding Bonds shall be lettered and numbered as provided in the related Certificate of Determination.

Section 2.06. Places of Payment and Paying Agent. Except as otherwise provided in the related Certificate of Determination, principal and Redemption Price of the Refunding Bonds shall be payable to the registered owner of each Refunding Bond when due upon presentation of such Refunding Bond at the principal corporate trust office of the Trustee. Except as otherwise provided in the related Certificate of Determination, interest on the registered Refunding Bonds will be paid by check or draft mailed on the interest payment date by the Paying Agent, to the registered owner at his address as it appears on the registration books or, at the option of any Owner of at least one million dollars (\$1,000,000) in principal amount of the Refunding Bonds, by wire transfer in immediately available funds on each interest payment date to such Owner thereof upon written notice from such Owner to the Trustee, at such address as the Trustee may from time to time notify such Owner, containing the wire transfer address (which shall be in the continental United States) to which such Owner wishes to have such wire directed, if such written notice is received not less than twenty (20) days prior to the related interest payment date (such notice may refer to multiple interest payments).

Section 2.07. Sinking Fund Installments. The Refunding Bonds, if any, determined in the related Certificate of Determination shall be subject to redemption (a) in part, by lot, (b) pro rata (in the case of taxable Refunding Bonds), or (c) otherwise as determined in accordance with Section A-404 of the Resolution, as set forth in the Certificate of Determination, on each date in the year or years determined in the Certificate of Determination at the principal amount thereof plus accrued interest up to but not including the date of redemption thereof, from mandatory Sinking Fund Installments which are required to be made in amounts sufficient to redeem on each such date the principal amount of such Refunding Bonds.

Section 2.08. Redemption Prices and Terms. The Refunding Bonds may also be subject to redemption prior to maturity, at the option of the Issuer, upon notice as provided in Article A-IV of the Resolution, at any time as a whole or in part (and by lot within a maturity, or

otherwise as determined in accordance with Section A-404 of the Resolution, if less than all of a maturity is to be redeemed), from maturities designated by the Issuer on and after the date and in the years and at the Redemption Prices (expressed as a percentage of principal amount) determined in the related Certificate of Determination, plus accrued interest up to but not including the redemption date. Notwithstanding the foregoing, in the case of taxable Refunding Bonds, if set forth in the Certificate of Determination, the taxable Refunding Bonds may be made subject to pro rata redemption and/or a make-whole redemption premium.

Section 2.09. Delegation to an Authorized Officer. 1. There is hereby delegated to each Authorized Officer, subject to the limitations contained in this Supplemental Resolution, the following powers with respect to the Refunding Bonds:

(a) to determine whether and when to issue any Refunding Bonds constituting Refunding Obligations or Obligations issued to refund Cross-Credit Obligations, and to determine the amount of the proceeds of the Refunding Bonds to be applied to refunding purposes as well as the specific Obligations or Parity Debt or Cross-Credit Obligations, or portions of either to be refunded and the date or dates, if any, on which such refunded obligations shall be redeemed, and the amount of the proceeds of the Refunding Bonds estimated to be necessary to pay the Costs of Issuance of the Refunding Bonds;

(b) to determine the purpose or purposes for which the Refunding Bonds are being issued, which shall be one or more of the purposes set forth in Section 2.02 of this Supplemental Resolution;

(c) to determine the principal amounts of the Refunding Bonds to be issued for the purposes set forth in Section 2.02 of this Supplemental Resolution and whether such principal amounts constitute a separate Series or a subseries of Refunding Bonds, and to determine Accreted Values and Appreciated Values, if applicable;

(d) to determine the maturity date and principal amount of each maturity of the Refunding Bonds and the amount and due date of each Sinking Fund Installment, if any;

(e) to determine the date or dates which the Refunding Bonds shall be dated and the interest rate or rates of the Refunding Bonds or the manner of determining such interest rate or rates; provided, however, that any Obligations issued as fixed rate Tax-Exempt Obligations shall be subject to a maximum interest rate of not greater than 10% per annum, any Obligations issued as fixed rate Taxable Obligations shall be subject to a maximum interest rate of not greater than 12% per annum, any Variable Interest Rate Obligations issued as Tax-Exempt Obligations shall be subject to a maximum interest rate of not greater than 15% per annum, any Variable Interest Rate Obligations issued as Taxable Obligations shall be subject to a maximum interest rate of not greater than 18% per annum and any Parity Reimbursement Obligations shall be subject to a maximum interest rate of not greater than 25% per annum, or, in each such case, such higher rate or rates as determined by the Issuer's Board;

(f) to determine the Redemption Price or Redemption Prices, if any, and the redemption terms, if any, for the Refunding Bonds; provided, however, that if the Refunding Bonds are to be redeemable at the election of the Issuer, the Redemption Price (except in the case

of taxable Refunding Bonds) shall not be greater than one hundred three percent (103%) of the principal amount of the Refunding Bonds to be redeemed, plus accrued interest thereon up to but not including the date of redemption and in the case of taxable Refunding Bonds the Redemption Price may be determined pursuant to provisions relating to pro rata redemption and/or make whole redemption;

(g) to determine whether the sale of the Refunding Bonds shall be conducted on either a negotiated or competitive bid basis and, as applicable, to determine the purchase price for the Refunding Bonds to be paid by the purchaser or purchasers referred to in one or more Purchase Agreements or a bank direct purchase agreement, or the purchase price for the Refunding Bonds to be paid by the winning bidder, if such sale is conducted by competitive bid pursuant to a Notice of Sale, in either case as such document is described in Section 2.10 of this Supplemental Resolution, which may include such original issue discount and original issue premium as shall be determined in the related Certificate of Determination; provided, however, that the underwriters' discount reflected in such purchase price shall not exceed \$10.00 for each one thousand dollars (\$1,000) principal amount of the Refunding Bonds;

(h) to take all actions required for the Refunding Bonds to be eligible under the rules and regulations of The Depository Trust Company ("DTC") for investment and trading as uncertificated securities, to execute and deliver a standard form of letter of representation with DTC and, notwithstanding any provisions to the contrary contained in this Supplemental Resolution, to include in the related Certificate of Determination such terms and provisions as may be appropriate or necessary to provide for uncertificated securities in lieu of Refunding Bonds issuable in fully registered form;

(i) to determine whether to issue all or any portion of the Refunding Bonds as Tax-Exempt Obligations, Taxable Obligations, Put Obligations, Variable Interest Rate Obligations or as any other form of Obligations permitted by the Resolution and any matters related thereto, including (i) the terms and provisions of any such Obligations, (ii) the selection of remarketing agents, tender agents, auction agents, dealers, calculation agents, bidding agents or any other agents or parties to ancillary arrangements and the terms of any such arrangements, and (iii) the methods for determining the accrual of Debt Service;

(j) to determine the advisability, as compared to an unenhanced transaction, of obtaining one or more Credit Facilities, to select a provider or providers thereof and to determine and accept the terms and provisions and price thereof, to determine such other matters related thereto as in the opinion of the officer executing the related Certificate of Determination shall be considered necessary or appropriate and to effect such determinations by making any changes in or additions to this Supplemental Resolution required by Credit Facility providers, if any, or required by a Rating Agency in order to attain or maintain specific ratings on the Refunding Bonds, or relating to the mechanisms for the repayment of amounts advanced thereunder or payment of fees, premiums, expenses or any other amounts, notices, the provision of information, and such other matters of a technical, mechanical, procedural or descriptive nature necessary or appropriate to obtain or implement a Credit Facility with respect to the Refunding Bonds, and to make any changes in connection therewith;

(k) to make such changes in or from the form of this Supplemental Resolution as may be required by a Rating Agency in order to attain or maintain specific ratings on the Refunding Bonds;

(l) to make such changes in or from the form of this Supplemental Resolution as may be necessary or desirable in order to cure any ambiguities, inconsistencies or other defects;

(m) to determine whether to (i) enter into an escrow agreement or other arrangement in connection with the issuance of Refunding Bonds, including the selection of escrow agents, verification agents and the manner of determining specified matters relating to the defeasance of the refunded obligations and (ii) purchase SLGs or open market securities and the form and substance thereof and any related investment agreement, and to determine the application of any amounts released in connection with any such refunding;

(n) to determine that such Refunding Bonds comply with all Board policies relating to the issuance of refunding obligations in effect at the time of such determination; and

(o) to determine such other matters specified in or permitted by (i) Sections 202, 203, 204 and A-201 of the Resolution or (ii) this Supplemental Resolution, and to determine matters relating to the payment or defeasance of Obligation Anticipation Notes, including preparation of any documentation therefor.

2. Any Authorized Officer shall execute one or more Certificates of Determination evidencing the determinations made pursuant to this Supplemental Resolution and any such Certificate of Determination shall be conclusive evidence of the determinations of such Authorized Officer, as stated therein. More than one Certificate of Determination may be delivered to the extent more than one Series or subseries of Refunding Bonds are delivered from time to time, or other authority is exercised under this Supplemental Resolution from time to time and each such Certificate of Determination shall be delivered to the Trustee prior to the authentication and delivery of the respective Series or subseries of Refunding Bonds by the Trustee or other documentation. Determinations set forth in any Certificate of Determination shall have the same effect as if set forth in this Supplemental Resolution. Any such Authorized Officer may exercise any authority delegated under this Supplemental Resolution from time to time following issuance of any Refunding Bonds, as appropriate for any purposes, including, in order to change interest rate modes or auction periods, if any Refunding Bonds shall consist of multiple subseries, to change the principal amounts and number of the individual subseries or to combine all subseries into a single Series, if any Refunding Bonds consist of a single Series, to divide such Series into two or more subseries and to determine the principal amount of such subseries, obtain a substitute or additional Credit Facility, enter into a bank direct purchase agreement or similar instrument or to appoint new or additional agents or other parties deemed appropriate to a particular form or mode of Obligation or manner of sale.

Section 2.10. Sale of Refunding Bonds. Each Authorized Officer is hereby authorized either (i) to sell and award all or any portion of the Refunding Bonds through a competitive bidding process to purchasers meeting the requirements of one or more Notices of Sale (as hereinafter defined) to be published in order to give notice of the competitive sale of the

Refunding Bonds; (ii) to sell and award all or any portion of the Refunding Bonds through a negotiated sale to the purchasers who are referred to in the bond purchase agreement and who shall be selected from the then current list of approved underwriters; or (iii) to sell and award all or any portion of the Refunding Bonds through a direct sale to the financial institution or institutions selected by the Authorized Officer who shall be referred to in the continuing covenant, direct purchase or similar agreement. Each Authorized Officer is hereby authorized to sell and award the Refunding Bonds to the purchasers referred to in the preceding sentence in the case of a bond purchase agreement, in substantially the form most recently executed or delivered by the Issuer in connection with the sale of Obligations, or, with respect to a continuing covenant, direct purchase or similar agreement, containing bank facility terms and provisions (including, without limitation, increased costs, term-out, events of default and remedies) in substantially the form set forth in a letter of credit reimbursement agreement most recently executed or delivered by the Issuer, including, if applicable, that the direct purchaser offer to the Issuer a term-out provision of no less than five years, with such revisions to reflect the terms and provisions of the Refunding Bonds as may be approved by the officer executing the bond purchase, continuing covenant or similar agreement (each, a "Purchase Agreement"). Each Authorized Officer is hereby authorized to agree to the selection of the representative of the underwriters or the other purchasers or facility providers as referred to in the Purchase Agreement or Agreements and to execute and deliver the Purchase Agreement or Agreements for and on behalf and in the name of the Issuer with such changes, omissions, insertions and revisions as may be approved by the officer executing the Purchase Agreement or Agreements, said execution being conclusive evidence of such approval and concurrence in the selection of the representative of the underwriters.

If it is determined that any sale of Bonds shall be conducted on a competitive bid basis, each Authorized Officer is hereby further authorized to conduct the sale and award of the Refunding Bonds on the basis of a competitive bid, pursuant to the terms of a notice of sale, including bid form (the "Notice of Sale"), in a form, including any limitations on permitted bidders and a description of the basis for determining the winning bidder or bidders, determined by such Authorized Officer. Each Authorized Officer is hereby authorized to conduct such competitive sale of the Refunding Bonds in a manner consistent with this Supplemental Resolution and to utilize the services of the Authority's financial advisor and the services of an electronic bidding service, as such Authorized Officer shall determine, and the execution by such Authorized Officer of a letter of award shall be conclusive evidence of such award.

Each Authorized Officer is hereby authorized to make public and to authorize the use and distribution by said purchasers or other appropriate parties of a preliminary official statement, offering circular, or other disclosure document (the "Preliminary Official Statement") in connection with each public offering or any private placement of the Refunding Bonds, in substantially the form most recently executed or delivered by the Issuer in connection with the sale of Obligations, with such changes, omissions, insertions and revisions as such officer shall deem advisable. The Issuer authorizes any of said officers to deliver a certification to the effect that such Preliminary Official Statement or Official Statement, if deemed necessary or appropriate, together with such other documents, if any, described in such certificate, was deemed final as of its date for purposes of Rule 15c2-12 of the Securities and Exchange Commission as applicable.

Each Authorized Officer is hereby authorized to make public and to authorize distribution of a final Official Statement in substantially the form of each Preliminary Official Statement or the most recently executed and delivered Official Statement if there is not a Preliminary Official Statement, with such changes, omissions, insertions and revisions as such officer shall deem advisable, to sign such Official Statement and to deliver such Official Statement to the purchasers of such issue of the Refunding Bonds, such execution being conclusive evidence of the approval of such changes, omissions, insertions and revisions.

Each Authorized Officer is hereby authorized to execute and deliver for and on behalf and in the name of the Issuer, to the extent determined by such Authorized Officer to be necessary or convenient, a Continuing Disclosure Agreement, substantially in the form appended to the Purchase Agreement or Notice of Sale, with such changes, omissions, insertions and revisions as such officer shall deem advisable (the "Continuing Disclosure Agreement"), said execution being conclusive evidence of the approval of such changes, omissions, insertions and revisions.

The proceeds of each good faith check, if any, received by the Issuer from the purchasers of each issue of Refunding Bonds under the terms of the related Purchase Agreement or Notice of Sale may be invested by the Issuer pending application of the proceeds of such good faith check for the purposes provided in Section 2.02 of this Supplemental Resolution at the time of the issuance and delivery of such Refunding Bonds.

Each Authorized Officer (including any Assistant Secretary of the Issuer) is hereby authorized and directed to execute, deliver, amend, replace or terminate any and all documents and instruments (including any remarketing agreements, dealer agreements, broker-dealer agreements, tender agent agreements, or auction agency agreements, any escrow agreements, any investment agreements or arrangements, or any reimbursement agreements or documents or instruments relating to a Credit Facility deemed appropriate to a given form or mode of an Obligation) and to do and cause to be done any and all acts necessary or proper for carrying out each Purchase Agreement or Notice of Sale, each Continuing Disclosure Agreement, the terms of any Credit Facility or other such agreement or arrangement, and the issuance, sale and delivery of each issue of the Refunding Bonds and for implementing the terms of each issue of the Refunding Bonds and the transactions contemplated hereby or thereby.

When reference is made in this Supplemental Resolution to the authorization of an Authorized Officer to do any act, such act may be accomplished by any of such officers individually.

Section 2.11. Forms of Refunding Bonds and Trustee's Authentication Certificate. Subject to the provisions of the Resolution, the form of registered Refunding Bonds, and the Trustee's certificate of authentication, shall be substantially in the form set forth in Exhibit One to the Resolution including, if necessary, any changes to comply with the requirements of DTC or the provisions of this Supplemental Resolution or any Certificate of Determination.

Section 2.12. Appointment of Trustee and Paying Agent. Unless otherwise provided by Certificate of Determination, U.S. Bank Trust National Association shall be the Trustee under the Resolution and the Paying Agent for the Refunding Bonds.

ARTICLE III

DISPOSITION OF REFUNDING BOND PROCEEDS

Section 3.01. Disposition of Refunding Bond Proceeds. Any proceeds of the sale of the Refunding Bonds, other than accrued interest, if any, shall be deposited, simultaneously with the issuance and delivery of the Refunding Bonds, at one time or from time to time in one or more Series or subseries, in the Proceeds Account which is deemed to be established for each Series in the Proceeds Fund to be applied, or shall otherwise be applied pursuant to a Certificate of Determination to:

(a) the refunding of any Obligations, Parity Debt or Cross-Credit Obligations, or portions of any of them, in accordance with Section 2.02 hereof; and

(b) the balance of such proceeds, exclusive of accrued interest, shall be deposited in the COI Account and applied to the payment of Costs of Issuance or otherwise applied to the payment of Costs of Issuance.

Unless otherwise provided in a Certificate of Determination, the accrued interest, if any, and any capitalized interest, received on the sale of the Refunding Bonds shall be deposited in the Debt Service Fund.

ARTICLE IV

TAX COVENANTS AND DEFEASANCE

Section 4.01. Tax Covenants Relating to the Refunding Bonds. The Issuer covenants that, in order to maintain the exclusion from gross income for Federal income tax purposes of the interest on the Refunding Bonds issued as Tax-Exempt Obligations, the Issuer will satisfy, or take such actions as are necessary to cause to be satisfied, each provision of the Code necessary to maintain such exclusion. In furtherance of this covenant, the Issuer agrees to comply with such written instructions as may be provided by Bond Counsel. In furtherance of the covenant contained in the preceding sentence, the Issuer agrees to continually comply with the provisions of any "Arbitrage and Use of Proceeds Certificate" or "Tax Certificate" to be executed by the Issuer in connection with the execution and delivery of any Refunding Bonds issued as Tax-Exempt Obligations, as amended from time to time.

Notwithstanding any other provision of the Resolution to the contrary, upon the Issuer's failure to observe, or refusal to comply with, the above covenant (a) the Owners of the Refunding Bonds, or the Trustee acting on their behalf, shall be entitled to the rights and remedies provided to Owners or the Trustee under Section 702 of the Resolution, other than the right (which is hereby abrogated solely as to the Issuer's failure to observe, or refusal to comply with the above covenant) to declare the principal of all Obligations then Outstanding, and the interest accrued thereon, to be due and payable pursuant to Section 567 of the Issuer Act, and (b) neither the Owners of the Obligations of any Series or holders of any Parity Debt (other than the Refunding Bonds or the Trustee acting on their behalf), nor the Trustee acting on their behalf, shall be entitled to exercise any right or remedy provided to the Owners, the Parity Debt holders or the Trustee under the Resolution based upon the Issuer's failure to observe, or refusal to comply with, the above covenant.

The provisions of the foregoing covenants set forth in this Section shall not apply to any Refunding Bonds, including any subseries thereof, which the Issuer determines pursuant to the applicable Certificate of Determination to issue as Taxable Obligations.

Section 4.02. Defeasance. In the event the Issuer shall seek, prior to the maturity or redemption date thereof, to pay or cause to be paid, within the meaning and with the effect expressed in the Resolution, all or less than all Outstanding Refunding Bonds issued as Tax-Exempt Obligations and the provisions of Section 4.01 hereof shall then be of any force or effect, then, notwithstanding the provisions of Article A-XI of the Resolution, the Refunding Bonds issued as Tax-Exempt Obligations which the Issuer then seeks to pay or cause to be paid shall not be deemed to have been paid within the meaning and with the effect expressed in Section A-1101 of the Resolution unless (i) the Issuer has confirmed in writing that the Owners of the Refunding Bonds issued as Tax-Exempt Obligations which the Issuer then seeks to pay or cause to be paid will continue, after such action, to have the benefit of a covenant to the effect of the covenant of the Issuer contained in Section 4.01 hereof or (ii) there shall have been delivered to the Trustee an Opinion of Bond Counsel to the effect that non-compliance thereafter with the applicable provisions of the Code will not affect the then current treatment of interest on the Refunding Bonds issued as Tax-Exempt Obligations in determining gross income for Federal income tax purposes.

TRIBOROUGH BRIDGE AND TUNNEL AUTHORITY

**MULTIPLE SERIES
2001 SUBORDINATE REVENUE REFUNDING BOND
SUPPLEMENTAL RESOLUTION**

Adopted December 14, 2016

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**MULTIPLE SERIES
2001 SUBORDINATE REVENUE REFUNDING BOND
SUPPLEMENTAL RESOLUTION**

BE IT RESOLVED by the Triborough Bridge and Tunnel Authority (the “Issuer”), as follows:

ARTICLE I

DEFINITIONS AND STATUTORY AUTHORITY

Section 1.01. Supplemental Resolution. This resolution is supplemental to, and is adopted in accordance with Article II and Article A-VIII of, a resolution of the Issuer adopted on March 26, 2002, entitled “2001 Subordinate Resolution Authorizing General Revenue Obligations” (the “Resolution”).

Section 1.02. Definitions.

1. All capitalized terms which are used but not otherwise defined in this Multiple Series 2001 Subordinate Revenue Refunding Bond Supplemental Resolution (the “Supplemental Resolution”) shall have the same meanings, respectively, as such terms are given by Section 102 of the Resolution.

2. In this Supplemental Resolution:

“Authorized Officer” shall include the officers designated as such in the Resolution, and the Chairman and Chief Executive Officer, the Chair of the Finance Committee, the Vice Chairman, the Chief Financial Officer or the Director, Finance, as well as any officer duly designated as “Acting” in said officer’s capacity, except that, for the purposes of any delegation set forth herein that does not expressly include any Assistant Secretary, “Authorized Officer” shall not include any Assistant Secretary of the Issuer.

“Board” shall mean, when used with respect to the Issuer, the board of the Issuer acting as such pursuant to the provisions of the Issuer Act, and when used with respect to the MTA, the members of the MTA acting as such pursuant to the provisions of the MTA Act.

“Bond Counsel” shall mean Nixon Peabody LLP, Orrick, Herrington & Sutcliffe LLP, D. Seaton and Associates, P.A., P.C., Bryant Rabbino LLP or any other attorney or firm of attorneys of nationally recognized standing in the field of law relating to the issuance of obligations by state and municipal entities, selected by the Issuer.

“Code” shall mean the Internal Revenue Code of 1986, as amended, and regulations thereunder.

“Cross-Credit Obligations” shall mean indebtedness or other obligations issued or incurred by the Issuer or any other Related Entity as described in clause (iii) of the definition of “Capital Costs”, but excluding Obligations.

“Refunding Bonds” shall mean the 2001 Subordinate Revenue Bonds authorized by Article II of this Supplemental Resolution in one or more Series or subseries.

Section 1.03. Authority for this Supplemental Resolution. This Supplemental Resolution is adopted pursuant to the provisions of the Issuer Act and the Resolution.

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ARTICLE II

AUTHORIZATION OF REFUNDING BONDS

Section 2.01. Authorized Principal Amount, Designation and Series.

1. Pursuant to the provisions of the Resolution and in order to issue (a) Refunding Subordinate Obligations, and (b) Obligations for the purpose of refunding Cross-Credit Obligations, multiple Series of Subordinate Revenue Obligations (which may be issued at one time or from time to time in any number of Series or subseries, which for purposes of this Supplemental Resolution shall collectively be referred to herein as the “Refunding Bonds”, subject to redesignation as hereinafter provided) entitled to the benefit, protection and security of such provisions are hereby authorized to be issued in an aggregate principal amount not exceeding the principal amount necessary so that, after giving effect to any net original issue discount or premium and underwriters’ discount from the principal amount, the amount to be deposited in the Proceeds Account pursuant to, or otherwise applied to effectuate the purposes of, Section 2.02 and Section 3.01 of this Supplemental Resolution (exclusive of the amount so deposited therein determined in any Certificate of Determination as estimated to be necessary to pay any Costs of Issuance of the Refunding Bonds payable from such Proceeds Account or otherwise applied to pay such Costs of Issuance), shall not exceed the amount or amounts determined in one or more Certificates of Determination to be necessary to effectuate the purposes set forth in Section 2.02 hereof; provided, however, that any Refunding Bonds issued pursuant to this Supplemental Resolution shall be issued in compliance with any Board policies relating to the issuance of refunding bonds as may be in effect from time to time.

2. Nothing in this Supplemental Resolution is intended to preclude the issuance of Refunding Bonds as refunding obligations in accordance with Section 203 of the Resolution.

Refunding Bonds shall be designated as, and shall be distinguished from the Obligations of all other Series by the title, “Subordinate Revenue Bonds, Series [insert calendar year of issuance]” or such other title or titles set forth in the related Certificate of Determination.

The authority to issue Obligations and take related actions granted under previous resolutions of the Issuer shall continue in full force and effect. The authorization to issue the Refunding Bonds and take other related actions hereunder shall continue in effect without any further action by the Issuer until the adoption by the Issuer Board of a subsequent refunding bond supplemental resolution relating to 2018 refundings.

Section 2.02. Purposes. The purposes for which the Refunding Bonds are issued shall be set forth in one or more Certificates of Determination and may include the refunding, restructuring or payment, including by purchasing, exchanging or tendering therefor, of all or any portion of any Outstanding Obligations or Parity Debt or Cross-Credit Obligations deemed advisable by an Authorized Officer in accordance with Section 203 or 204 of the Resolution, as applicable.

Section 2.03. Dates, Maturities, Principal Amounts and Interest. The Refunding Bonds, except as otherwise provided in the Resolution, shall be dated the date or dates determined in the related Certificate of Determination. The Refunding Bonds shall mature on the date or dates and in the year or years and principal amount or amounts, and shall bear interest at the rate or rates per annum, if any, specified in or determined in the manner provided in the related Certificate of Determination.

Section 2.04. Interest Payments. The Refunding Bonds shall bear interest from their date or dates and be payable on such date or dates as may be determined pursuant to the related Certificate of Determination. Except as otherwise provided in the related Certificate of Determination, interest on the Refunding Bonds shall be computed on the basis of twelve 30-day months and a 360-day year.

Section 2.05. Denominations, Numbers and Letters. Unless otherwise provided in the related Certificate of Determination, the Refunding Bonds shall be issued in fully registered form without coupons in the denomination of \$5,000 or any integral multiple thereof.

The Refunding Bonds shall be lettered and numbered as provided in the related Certificate of Determination.

Section 2.06. Places of Payment and Paying Agent. Except as otherwise provided in the related Certificate of Determination, principal and Redemption Price of the Refunding Bonds shall be payable to the registered owner of each Refunding Bond when due upon presentation of such Refunding Bond at the principal corporate trust office of the Trustee. Except as otherwise provided in the related Certificate of Determination, interest on the registered Refunding Bonds will be paid by check or draft mailed on the interest payment date by the Paying Agent, to the registered owner at his address as it appears on the registration books or, at the option of any Owner of at least one million dollars (\$1,000,000) in principal amount of the Refunding Bonds, by wire transfer in immediately available funds on each interest payment date to such Owner thereof upon written notice from such Owner to the Trustee, at such address as the Trustee may from time to time notify such Owner, containing the wire transfer address (which shall be in the continental United States) to which such Owner wishes to have such wire directed, if such written notice is received not less than twenty (20) days prior to the related interest payment date (such notice may refer to multiple interest payments).

Section 2.07. Sinking Fund Installments. The Refunding Bonds, if any, determined in the related Certificate of Determination shall be subject to redemption (a) in part, by lot, (b) pro rata (in the case of taxable Refunding Bonds), or (c) otherwise as determined in accordance with Section A-404 of the Resolution, as set forth in the Certificate of Determination, on each date in the year or years determined in the Certificate of Determination at the principal amount thereof plus accrued interest up to but not including the date of redemption thereof, from mandatory Sinking Fund Installments which are required to be made in amounts sufficient to redeem on each such date the principal amount of such Refunding Bonds.

Section 2.08. Redemption Prices and Terms. The Refunding Bonds may also be subject to redemption prior to maturity, at the option of the Issuer, upon notice as provided in Article A-IV of the Resolution, at any time as a whole or in part (and by lot within a maturity, or

otherwise as determined in accordance with Section A-404 of the Resolution, if less than all of a maturity is to be redeemed), from maturities designated by the Issuer on and after the date and in the years and at the Redemption Prices (expressed as a percentage of principal amount) determined in the related Certificate of Determination, plus accrued interest up to but not including the redemption date. Notwithstanding the foregoing, in the case of taxable Refunding Bonds, if set forth in the Certificate of Determination, the taxable Refunding Bonds may be made subject to pro rata redemption and/or a make-whole redemption premium.

Section 2.09. Delegation to an Authorized Officer. 1. There is hereby delegated to each Authorized Officer, subject to the limitations contained in this Supplemental Resolution, the following powers with respect to the Refunding Bonds:

(a) to determine whether and when to issue any Refunding Bonds constituting Refunding Subordinate Obligations or Obligations issued to refund Cross-Credit Obligations, and to determine the amount of the proceeds of the Refunding Bonds to be applied to refunding purposes as well as the specific Obligations or Parity Debt or Cross-Credit Obligations, or portions of either to be refunded and the date or dates, if any, on which such refunded obligations shall be redeemed, and the amount of the proceeds of the Refunding Bonds estimated to be necessary to pay the Costs of Issuance of the Refunding Bonds;

(b) to determine the purpose or purposes for which the Refunding Bonds are being issued, which shall be one or more of the purposes set forth in Section 2.02 of this Supplemental Resolution;

(c) to determine the principal amounts of the Refunding Bonds to be issued for the purposes set forth in Section 2.02 of this Supplemental Resolution and whether such principal amounts constitute a separate Series or a subseries of Refunding Bonds, and to determine Accreted Values and Appreciated Values, if applicable;

(d) to determine the maturity date and principal amount of each maturity of the Refunding Bonds and the amount and due date of each Sinking Fund Installment, if any;

(e) to determine the date or dates which the Refunding Bonds shall be dated and the interest rate or rates of the Refunding Bonds or the manner of determining such interest rate or rates; provided, however, that any Obligations issued as fixed rate Tax-Exempt Obligations shall be subject to a maximum interest rate of not greater than 10% per annum, any Obligations issued as fixed rate Taxable Obligations shall be subject to a maximum interest rate of not greater than 12% per annum, any Variable Interest Rate Obligations issued as Tax-Exempt Obligations shall be subject to a maximum interest rate of not greater than 15% per annum, any Variable Interest Rate Obligations issued as Taxable Obligations shall be subject to a maximum interest rate of not greater than 18% per annum and any Parity Reimbursement Obligations shall be subject to a maximum interest rate of not greater than 25% per annum, or, in each such case, such higher rate or rates as determined by the Issuer's Board;

(f) to determine the Redemption Price or Redemption Prices, if any, and the redemption terms, if any, for the Refunding Bonds; provided, however, that if the Refunding Bonds are to be redeemable at the election of the Issuer, the Redemption Price (except in the case

of taxable Refunding Bonds) shall not be greater than one hundred three percent (103%) of the principal amount of the Refunding Bonds to be redeemed, plus accrued interest thereon up to but not including the date of redemption and in the case of taxable Refunding Bonds the Redemption Price may be determined pursuant to provisions relating to pro rata redemption and/or make whole redemption;

(g) to determine whether the sale of the Refunding Bonds shall be conducted on either a negotiated or competitive bid basis and, as applicable, to determine the purchase price for the Refunding Bonds to be paid by the purchaser or purchasers referred to in one or more Purchase Agreements or a bank direct purchase agreement, or the purchase price for the Refunding Bonds to be paid by the winning bidder, if such sale is conducted by competitive bid pursuant to a Notice of Sale, in either case as such document is described in Section 2.10 of this Supplemental Resolution, which may include such original issue discount and original issue premium as shall be determined in the related Certificate of Determination; provided, however, that the underwriters' discount reflected in such purchase price shall not exceed \$10.00 for each one thousand dollars (\$1,000) principal amount of the Refunding Bonds;

(h) to take all actions required for the Refunding Bonds to be eligible under the rules and regulations of The Depository Trust Company ("DTC") for investment and trading as uncertificated securities, to execute and deliver a standard form of letter of representation with DTC and, notwithstanding any provisions to the contrary contained in this Supplemental Resolution, to include in the related Certificate of Determination such terms and provisions as may be appropriate or necessary to provide for uncertificated securities in lieu of Refunding Bonds issuable in fully registered form;

(i) to determine whether to issue all or any portion of the Refunding Bonds as Tax-Exempt Obligations, Taxable Obligations, Put Obligations, Variable Interest Rate Obligations or as any other form of Obligations permitted by the Resolution and any matters related thereto, including (i) the terms and provisions of any such Obligations, (ii) the selection of remarketing agents, tender agents, auction agents, dealers, calculation agents, bidding agents or any other agents or parties to ancillary arrangements and the terms of any such arrangements, and (iii) the methods for determining the accrual of Debt Service;

(j) to determine the advisability, as compared to an unenhanced transaction, of obtaining one or more Credit Facilities, to select a provider or providers thereof and to determine and accept the terms and provisions and price thereof, to determine such other matters related thereto as in the opinion of the officer executing the related Certificate of Determination shall be considered necessary or appropriate and to effect such determinations by making any changes in or additions to this Supplemental Resolution required by Credit Facility providers, if any, or required by a Rating Agency in order to attain or maintain specific ratings on the Refunding Bonds, or relating to the mechanisms for the repayment of amounts advanced thereunder or payment of fees, premiums, expenses or any other amounts, notices, the provision of information, and such other matters of a technical, mechanical, procedural or descriptive nature necessary or appropriate to obtain or implement a Credit Facility with respect to the Refunding Bonds, and to make any changes in connection therewith;

(k) to make such changes in or from the form of this Supplemental Resolution as may be required by a Rating Agency in order to attain or maintain specific ratings on the Refunding Bonds;

(l) to make such changes in or from the form of this Supplemental Resolution as may be necessary or desirable in order to cure any ambiguities, inconsistencies or other defects;

(m) to determine whether to (i) enter into an escrow agreement or other arrangement in connection with the issuance of Refunding Bonds, including the selection of escrow agents, verification agents and the manner of determining specified matters relating to the defeasance of the refunded obligations and (ii) purchase SLGs or open market securities and the form and substance thereof and any related investment agreement, and to determine the application of any amounts released in connection with any such refunding;

(n) to determine that such Refunding Bonds comply with all Board policies relating to the issuance of refunding obligations in effect at the time of such determination; and

(o) to determine such other matters specified in or permitted by (i) Sections 202, 203, 204 and A-201 of the Resolution or (ii) this Supplemental Resolution, and to determine matters relating to the payment or defeasance of Obligation Anticipation Notes, including preparation of any documentation therefor.

2. Any Authorized Officer shall execute one or more Certificates of Determination evidencing the determinations made pursuant to this Supplemental Resolution and any such Certificate of Determination shall be conclusive evidence of the determinations of such Authorized Officer, as stated therein. More than one Certificate of Determination may be delivered to the extent more than one Series or subseries of Refunding Bonds are delivered from time to time, or other authority is exercised under this Supplemental Resolution from time to time and each such Certificate of Determination shall be delivered to the Trustee prior to the authentication and delivery of the respective Series or subseries of Refunding Bonds by the Trustee or other documentation. Determinations set forth in any Certificate of Determination shall have the same effect as if set forth in this Supplemental Resolution. Any such Authorized Officer may exercise any authority delegated under this Supplemental Resolution from time to time following issuance of any Refunding Bonds, as appropriate for any purposes, including, in order to change interest rate modes or auction periods, if any Refunding Bonds shall consist of multiple subseries, to change the principal amounts and number of the individual subseries or to combine all subseries into a single Series, if any Refunding Bonds consist of a single Series, to divide such Series into two or more subseries and to determine the principal amount of such subseries, obtain a substitute or additional Credit Facility, enter into a bank direct purchase agreement or similar instrument or to appoint new or additional agents or other parties deemed appropriate to a particular form or mode of Obligation or manner of sale.

Section 2.10. Sale of Refunding Bonds. Each Authorized Officer is hereby authorized either (i) to sell and award all or any portion of the Refunding Bonds through a competitive bidding process to purchasers meeting the requirements of one or more Notices of Sale (as hereinafter defined) to be published in order to give notice of the competitive sale of the

Refunding Bonds; (ii) to sell and award all or any portion of the Refunding Bonds through a negotiated sale to the purchasers who are referred to in the bond purchase agreement and who shall be selected from the then current list of approved underwriters; or (iii) to sell and award all or any portion of the Refunding Bonds through a direct sale to the financial institution or institutions selected by the Authorized Officer who shall be referred to in the continuing covenant, direct purchase or similar agreement. Each Authorized Officer is hereby authorized to sell and award the Refunding Bonds to the purchasers referred to in the preceding sentence in the case of a bond purchase agreement, in substantially the form most recently executed or delivered by the Issuer in connection with the sale of Obligations, or, with respect to a continuing covenant, direct purchase or similar agreement, containing bank facility terms and provisions (including, without limitation, increased costs, term-out, events of default and remedies) in substantially the form set forth in a letter of credit reimbursement agreement most recently executed or delivered by the Issuer, including, if applicable, that the direct purchaser offer to the Issuer a term-out provision of no less than five years, with such revisions to reflect the terms and provisions of the Refunding Bonds as may be approved by the officer executing the bond purchase, continuing covenant or similar agreement (each, a "Purchase Agreement"). Each Authorized Officer is hereby authorized to agree to the selection of the representative of the underwriters or the other purchasers or facility providers as referred to in the Purchase Agreement or Agreements and to execute and deliver the Purchase Agreement or Agreements for and on behalf and in the name of the Issuer with such changes, omissions, insertions and revisions as may be approved by the officer executing the Purchase Agreement or Agreements, said execution being conclusive evidence of such approval and concurrence in the selection of the representative of the underwriters.

If it is determined that any sale of Bonds shall be conducted on a competitive bid basis, each Authorized Officer is hereby further authorized to conduct the sale and award of the Refunding Bonds on the basis of a competitive bid, pursuant to the terms of a notice of sale, including bid form (the "Notice of Sale"), in a form, including any limitations on permitted bidders and a description of the basis for determining the winning bidder or bidders, determined by such Authorized Officer. Each Authorized Officer is hereby authorized to conduct such competitive sale of the Refunding Bonds in a manner consistent with this Supplemental Resolution and to utilize the services of the Authority's financial advisor and the services of an electronic bidding service, as such Authorized Officer shall determine, and the execution by such Authorized Officer of a letter of award shall be conclusive evidence of such award.

Each Authorized Officer is hereby authorized to make public and to authorize the use and distribution by said purchasers or other appropriate parties of a preliminary official statement, offering circular, or other disclosure document (the "Preliminary Official Statement") in connection with each public offering or any private placement of the Refunding Bonds, in substantially the form most recently executed or delivered by the Issuer in connection with the sale of Obligations, with such changes, omissions, insertions and revisions as such officer shall deem advisable. The Issuer authorizes any of said officers to deliver a certification to the effect that such Preliminary Official Statement or Official Statement, if deemed necessary or appropriate, together with such other documents, if any, described in such certificate, was deemed final as of its date for purposes of Rule 15c2-12 of the Securities and Exchange Commission as applicable.

Each Authorized Officer is hereby authorized to make public and to authorize distribution of a final Official Statement in substantially the form of each Preliminary Official Statement or the most recently executed and delivered Official Statement if there is not a Preliminary Official Statement, with such changes, omissions, insertions and revisions as such officer shall deem advisable, to sign such Official Statement and to deliver such Official Statement to the purchasers of such issue of the Refunding Bonds, such execution being conclusive evidence of the approval of such changes, omissions, insertions and revisions.

Each Authorized Officer is hereby authorized to execute and deliver for and on behalf and in the name of the Issuer, to the extent determined by such Authorized Officer to be necessary or convenient, a Continuing Disclosure Agreement, substantially in the form appended to the Purchase Agreement or Notice of Sale, with such changes, omissions, insertions and revisions as such officer shall deem advisable (the "Continuing Disclosure Agreement"), said execution being conclusive evidence of the approval of such changes, omissions, insertions and revisions.

The proceeds of each good faith check, if any, received by the Issuer from the purchasers of each issue of Refunding Bonds under the terms of the related Purchase Agreement or Notice of Sale may be invested by the Issuer pending application of the proceeds of such good faith check for the purposes provided in Section 2.02 of this Supplemental Resolution at the time of the issuance and delivery of such Refunding Bonds.

Each Authorized Officer (including any Assistant Secretary of the Issuer) is hereby authorized and directed to execute, deliver, amend, replace or terminate any and all documents and instruments (including any remarketing agreements, dealer agreements, broker-dealer agreements, tender agent agreements, or auction agency agreements, any escrow agreements, any investment agreements or arrangements, or any reimbursement agreements or documents or instruments relating to a Credit Facility deemed appropriate to a given form or mode of an Obligation) and to do and cause to be done any and all acts necessary or proper for carrying out each Purchase Agreement or Notice of Sale, each Continuing Disclosure Agreement, the terms of any Credit Facility or other such agreement or arrangement, and the issuance, sale and delivery of each issue of the Refunding Bonds and for implementing the terms of each issue of the Refunding Bonds and the transactions contemplated hereby or thereby.

When reference is made in this Supplemental Resolution to the authorization of an Authorized Officer to do any act, such act may be accomplished by any of such officers individually.

Section 2.11. Forms of Refunding Bonds and Trustee's Authentication Certificate. Subject to the provisions of the Resolution, the form of registered Refunding Bonds, and the Trustee's certificate of authentication, shall be substantially in the form set forth in Exhibit One to the Resolution including, if necessary, any changes to comply with the requirements of DTC or the provisions of this Supplemental Resolution or any Certificate of Determination.

Section 2.12. Appointment of Trustee and Paying Agent. Unless otherwise provided by Certificate of Determination, The Bank of New York Mellon shall be the Trustee under the Resolution and the Paying Agent for the Refunding Bonds.

ARTICLE III

DISPOSITION OF REFUNDING BOND PROCEEDS

Section 3.01. Disposition of Refunding Bond Proceeds. Any proceeds of the sale of the Refunding Bonds, other than accrued interest, if any, shall be deposited, simultaneously with the issuance and delivery of the Refunding Bonds, at one time or from time to time in one or more Series or subseries, in the Proceeds Account which is deemed to be established for each Series in the Proceeds Fund to be applied, or shall otherwise be applied pursuant to a Certificate of Determination to:

(a) the refunding of any Obligations, Parity Debt or Cross-Credit Obligations, or portions of any of them, in accordance with Section 2.02 hereof; and

(b) the balance of such proceeds, exclusive of accrued interest, shall be deposited in the COI Account and applied to the payment of Costs of Issuance or otherwise applied to the payment of Costs of Issuance.

Unless otherwise provided in a Certificate of Determination, the accrued interest, if any, and any capitalized interest, received on the sale of the Refunding Bonds shall be deposited in the Debt Service Fund.

ARTICLE IV

TAX COVENANTS, ADDITIONAL COVENANTS AND DEFEASANCE

Section 4.01. Tax Covenants Relating to the Refunding Bonds. The Issuer covenants that, in order to maintain the exclusion from gross income for Federal income tax purposes of the interest on the Refunding Bonds issued as Tax-Exempt Obligations, the Issuer will satisfy, or take such actions as are necessary to cause to be satisfied, each provision of the Code necessary to maintain such exclusion. In furtherance of this covenant, the Issuer agrees to comply with such written instructions as may be provided by Bond Counsel. In furtherance of the covenant contained in the preceding sentence, the Issuer agrees to continually comply with the provisions of any "Arbitrage and Use of Proceeds Certificate" or "Tax Certificate" to be executed by the Issuer in connection with the execution and delivery of any Refunding Bonds issued as Tax-Exempt Obligations, as amended from time to time.

Notwithstanding any other provision of the Resolution to the contrary, upon the Issuer's failure to observe, or refusal to comply with, the above covenant (a) the Owners of the Refunding Bonds, or the Trustee acting on their behalf, shall be entitled to the rights and remedies provided to Owners or the Trustee under Section 702 of the Resolution, other than the right (which is hereby abrogated solely as to the Issuer's failure to observe, or refusal to comply with the above covenant) to declare the principal of all Obligations then Outstanding, and the interest accrued thereon, to be due and payable pursuant to Section 567 of the Issuer Act, and (b) neither the Owners of the Obligations of any Series or holders of any Parity Debt (other than the Refunding Bonds or the Trustee acting on their behalf), nor the Trustee acting on their behalf, shall be entitled to exercise any right or remedy provided to the Owners, the Parity Debt holders or the Trustee under the Resolution based upon the Issuer's failure to observe, or refusal to comply with, the above covenant.

The provisions of the foregoing covenants set forth in this Section shall not apply to any Refunding Bonds, including any subseries thereof, which the Issuer determines pursuant to the applicable Certificate of Determination to issue as Taxable Obligations.

Section 4.02. Additional Covenants.

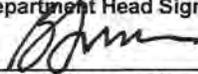
1. The Issuer covenants and agrees that it will not issue any Senior Obligations under the Senior Resolution (other than pursuant to Section 205 thereof) unless in addition to satisfying the requirements of the Senior Resolution, an Authorized Officer delivers to the trustee under the Senior Resolution a certificate demonstrating that for any period of 12 consecutive calendar months out of the 18 complete calendar months next preceding the date of authentication and delivery such issue of Senior Obligations, Net Revenues are at least equal to 1.10 times the Combined Maximum Annual Calculated Debt Service for all Subordinate Revenue Obligations, Parity Debt, Senior Obligations and Senior Parity Debt.

2. The Issuer covenants and agrees that in addition to complying with the provisions of Section 604 of the Resolution, the Issuer shall at all times establish, levy, maintain and collect, or cause to be established, levied, maintained and collected, such tolls, rentals and other charges in connection with the TBTA Facilities as shall always be sufficient, together with

other money available therefor (including the anticipated receipt of proceeds of sale of Obligations or other bonds, notes or other obligations or evidences of indebtedness of the Issuer that will be used to pay the principal of Obligations issued in anticipation of such receipt, but not including any anticipated or actual proceeds from the sale of TBTA Facilities), to equal or exceed in each calendar year the greater of (a) an amount equal to the sum of amounts necessary in such calendar year (i) to pay all Operating Expenses of the Issuer, plus (ii) to pay the sum of Calculated Debt Service as defined in the Resolution and Calculated Debt Service as defined in the Senior Resolution, plus (iii) to maintain any reserve established by the Issuer pursuant to the Senior Resolution, in such amount as may be determined from time to time by an Authorized Officer in his or her judgment, or (b) an amount such that Revenues less Operating Expenses shall equal at least 1.10 times the sum of Calculated Debt Service as defined in the Senior Resolution and Calculated Debt Service as defined in the Resolution for such calendar year.

Section 4.03. Defeasance. In the event the Issuer shall seek, prior to the maturity or redemption date thereof, to pay or cause to be paid, within the meaning and with the effect expressed in the Resolution, all or less than all Outstanding Refunding Bonds issued as Tax-Exempt Obligations and the provisions of Section 4.01 hereof shall then be of any force or effect, then, notwithstanding the provisions of Article A-XI of the Resolution, the Refunding Bonds issued as Tax-Exempt Obligations which the Issuer then seeks to pay or cause to be paid shall not be deemed to have been paid within the meaning and with the effect expressed in Section A-1101 of the Resolution unless (i) the Issuer has confirmed in writing that the Owners of the Refunding Bonds issued as Tax-Exempt Obligations which the Issuer then seeks to pay or cause to be paid will continue, after such action, to have the benefit of a covenant to the effect of the covenant of the Issuer contained in Section 4.01 hereof or (ii) there shall have been delivered to the Trustee an Opinion of Bond Counsel to the effect that non-compliance thereafter with the applicable provisions of the Code will not affect the then current treatment of interest on the Refunding Bonds issued as Tax-Exempt Obligations in determining gross income for Federal income tax purposes.

Staff Summary

Subject Approval of Municipal, Special, and Swap Advisors Contract Authorization
Department Finance
Department Head Name Robert E. Foran, Chief Financial Officer
Department Head Signature 
Project Manager Name Patrick McCoy, Director of Finance <i>psm</i>

Date December 14, 2016
Vendor Names Public Resources Advisory Group, Mohanty Gargiulo LLC, Acacia Financial, and Piper Jaffray
Contract Number
Contract Manager Name
Table of Contents Ref #

Board Action					
Order	To	Date	Approval	Info	Other
1	Finance Comm.	12/12	X		
2	Board	12/14	X		

Internal Approvals			
Order	Approval	Order	Approval
1	Legal <i>AR</i>		
2	Chief of Staff <i>SMK</i>		

PURPOSE:

To obtain MTA and TBTA Board approval of contracts with each of the following firms to provide financial advisory services to MTA:

1. The advisory team of Public Resources Advisory Group together with Backstrom McCarley Berry & Co., LLC, a State certified MBE, and Rockfleet Financial Services, Inc. a State certified WBE for general financial advisory services, (collectively, “the PRAG Team”) in connection with the issuance of MTA and TBTA bonds and other obligations. The PRAG Team will act as Municipal Advisor to MTA, and will serve as MTA’s Independent Registered Municipal Advisor (IRMA),
2. Mohanty Gargiulo for swap advisory services and to serve as MTA’s Qualified Independent Representative (QIR) with respect to all derivative matters. Mohanty Gargiulo is a State certified Women Business Enterprise (WBE), as well as a Minority Business Enterprise (MBE),
3. Acacia Financial (Acacia), a State certified WBE, for special advisory services as described in more detail below,
4. Piper Jaffray (Piper) for special advisory services as described in more detail below.

DISCUSSION:

The Municipal Advisor is responsible for providing expert market advice on the timing, structure, and execution of capital market activity by MTA and TBTA. The PRAG Team will act as MTA’s IRMA and will provide MTA with advice on its capital markets activities as a fiduciary service provider. PRAG specializes in advising governmental entities and public benefit corporations on capital market activities and is a registered municipal advisor with the Municipal Securities Rulemaking Board. The PRAG Team includes Backstrom McCarley Berry & Co., LLC and Rockfleet Financial Services, which are registered broker-dealers. These firms will provide critical market data and pricing information to enable MTA to achieve optimal pricing on bonds, notes and other debt obligations.

The Swap Advisor is responsible for providing expert advice on the timing, structure, terms and conditions and on-going monitoring of the MTA’s (including TBTA) outstanding portfolio of interest rate derivatives and fuel hedges. Mohanty Gargiulo specializes in advising governmental municipalities and public benefit corporations on structuring and managing derivatives exposure and providing financial advisory services. Mohanty Gargiulo is registered QIR and maintains necessary regulatory filings to serve in this role. Mohanty Gargiulo is a fiduciary service provider.

Acacia has been selected to serve as MTA’s Special Advisor and will focus on providing professional advisory services in MTA’s ongoing relationships with rating agencies and investors on an as needed basis.

Piper has been selected to serve as MTA’s Special Advisor and will focus on providing professional advisory services in MTA’s pursuit of federal loan programs and public private partnerships, or P3 on an as needed basis.

Staff Summary

The incumbent Municipal Advisor is Public Financial Management which has served in this role since January of 2013. The incumbent Swap Advisor is Mohanty Gargiullo which has served as Swap Advisor since January of 2013.

MTA has not previously retained special advisors.

BACKGROUND:

The Finance Department issued a formal Request for Proposals from qualified firms to serve as Municipal Advisor, Swap Advisor and/or Special Advisor to the MTA and TBTA on August 23, 2016.

A total of 14 proposals were received by the submission deadline of October 10, 2016.

After initial screening and review by the selection committee, ten firms were invited to participate in oral interviews for further evaluation. These interviews provided the selection committee the opportunity to ask questions about the written submissions, and to meet the key advisory team members that would be assigned to the MTA account. MTA also asked each of the ten firms interviewed to address four specific questions for uniformity.

The selection committee was unanimous in its recommendation of the PRAG Team as general municipal advisor. PRAG has a large and diverse practice as an advisor to large issuers, including transportation and transit agencies nationally, and has previous experience working with its two MWBE partners on this engagement: Backstrom McCarley Berry & Co., LLC and Rockfleet Financial Services.

Based on the written proposal and oral interview, the selection committee unanimously recommended Mohanty Gargiulo for swap advisor services. Mohanty Gargiulo specializes in advising governmental municipalities and public benefit corporations on structuring and managing derivatives exposure as well as providing general municipal advisory services. In addition, Mohanty Gargiulo is a State certified WBE, and MBE.

The recommendations are based upon the quality of the written proposals, the oral interviews, the experience and expertise of the key members of the respective advisory teams, and the fee proposals.

COST:

MTA held pricing negotiations with all of the recommended providers. The PRAG Team agreed to an annual fee of \$714,000, which is a 2% increase over the incumbent advisor. MTA agreed to a 2% increase for each year of the term of the agreement. Mohanty Gargiulo agreed to an annual fee of \$185,000 for the next three year engagement, which incorporates an inflationary cost adjustment of approximately 2% over the prior contract period. The special advisors will bill the MTA on a direct basis with hourly fee structures ranging from \$50/hour to \$400/hour when engaged.

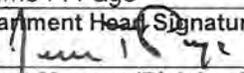
ALTERNATIVES:

There is no alternative for the MTA to not use a Municipal Advisor or Swap Advisor.

RECOMMENDATION:

After considering each firm's qualifications and price proposal, the selection committee recommends the appointment of the PRAG Team as general financial advisor relating to the issuance of bonds and other obligations, and Mohanty Gargiulo LLC to serve as an advisor on derivative transactions for a period of three years each. The Board is also recommended to approve Acacia and Piper as special advisors. Recommendation is also made to include up to two annual renewals for each of the contracts.

Staff Summary

Subject Law Firm Panel Addition
Department MTA Office of General Counsel
Department Head Name Jerome F. Page
Department Head Signature 
Project Manager/Division Head Jerome F. Page

Date December 14, 2016
Vendor Name Harris Beach PLLC
Contract Number
Contract Manager Name
Table of Contents Ref #

Board Action					
Order	To	Date	Approval	Info	Other
1	Finance Comm.	12/12/16			
2	Board	12/14/16			

Internal Approvals			
Order	Approval	Order	Approval
4	Chief of Staff 	2	DDCR 
3	Chief Financial Officer 	1	Legal 

Purpose:

To obtain Board approval to add the law firm Harris Beach PLLC (the "Firm") to the panel of Board-approved outside counsel. The approval of this firm is sought in connection with its representation of Metropolitan Transportation Authority ("MTA") and its agencies with respect to the procurement of an electricity supply contract to commence following the expiration of the current long-term agreement with the New York Power Authority ("NYPA") on December 31, 2017, and other energy related matters.

Discussion:

MTA's agreement with NYPA for electricity supply expires on December 31, 2017. MTA is currently in negotiations with NYPA on the terms of a successor supply contract and is also exploring other alternatives for some or all of the electricity supply currently being supplied by NYPA. In 2015, MTA paid approximately \$385 million for electricity supply and delivery under the current contract with NYPA. Given the importance and complexity of a successor electricity supply contract, the retention of outside counsel is necessary and appropriate to represent and protect the interests of MTA and the agencies. A number of the firms on the existing panel were considered for this assignment, but because of conflicts of interest and the specialized nature of the required skills and experience, no firms on the panel with the necessary background, skills and capacity were available. Although there is an active RFP for a new general law panel in twelve practice areas, including energy, the RFP evaluation and rate negotiation process is not complete.

Staff recommends that the Board authorize MTA's entry into a retainer with the Firm, which has extensive prior experience with respect to electricity supply contracts in New York and transactions with NYPA. The Firm has agreed to provide a 20% discount off standard billing rates for all work on these matters. The discounted hourly rates for the firm range from \$150 for an associate to \$400 for a senior partner. These rates are competitive with rates for similarly qualified firms in this practice area.

Recommendation:

It is recommended that the Board approve the appointment of the Firm to the approved outside counsel panel for matters other than personal injury, and authorize the MTA's execution of a retainer with the Firm as set forth above. As in the past, it is requested that the Board's approval of the Firm also entail the approved use of a successor firm, in the event that the Firm should subsequently merge into another firm, or a partner or principal lawyer in charge of an MTA matter at the Firm should move to a different firm.

FINANCE COMMITTEE CONTRACT CHANGE ORDER REPORT - 3rd Quarter (July-Sept '16)

(NON-CAPITAL CHANGE ORDER VALUE MORE THAN \$250,000 -- UP TO \$750,000)

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Agency	Contract Number	Contract Description	Base Contract Value*	Prior Modifications Value	Current Change Order Value	Percentage of Current Change Order Value to Base Contract Value	Change Order Number	Date of Change Order Award	Change Order Description
MTAB&T	PSC-03-2689	Design and Design Services During Construction for Project VN-80, Upper Level Deck Rehabilitation of	\$971,618	\$19,908,170	\$472,230	48.60%	AM 17	7/6/2016	Additional funding to provide design support services during construction at the Verrazano Narrows Bridge.
MTAB&T	RK-65A	Bronx Plaza / Structural Rehabilitation at the RFK Bridge	\$213,400,794	\$3,484,021	\$704,750	0.33%	7	7/25/2016	Adjust unit price item quantities including revision to one unit price for providing galvanized downspouts per revised Authority requirements.
MTAB&T	RK-65A	Bronx Plaza / Structural Rehabilitation at the RFK Bridge	\$213,400,794	\$4,188,771	\$391,940	0.18%	8	8/15/2016	Removal and disposal of unanticipated contaminated, non-hazardous soil.
MTAB&T	BB-28S	Sandy Restoration and Projects BB-28/BB-54, Rehabilitation of the Tunnel and Brooklyn Plaza at the Hugh L. Carey Tunnel	\$282,454,276	\$1,124,724	\$450,000	0.16%	AM 6	8/29/2016	Additional funding for camera systems and outdated servers and associated equipment.
MTAB&T	PSC--12-2906	Design Services for Reconstruction of the Upper and Lower Level Toll Plazas and Southbound Approach at the Henry Hudson Bridge	\$7,193,725	\$2,232,471	\$418,538	5.82%	5	9/15/2016	Additional Desgin services for HH-88A including review of RFIs, evaluations of contractor proposed alternatives, and resolution of field conditions.
MTAB&T	PSC--12-2906	Design Services for Reconstruction of the Upper and Lower Level Toll Plazas and Southbound Approach at the Henry Hudson Bridge	\$7,193,725	\$2,651,009	\$291,556	4.05%	6	9/20/2016	Additional Desgin services for HH-88B, investigating additional MPT alternatives, additional value engineering reviews, etc.

*Including any exercised options

Agency	Contract Number	Contract Description	Base Contract Value*	Prior Modifications Value	Current Change Order Value	Percentage of Current Change Order Value to Base Contract Value	Change Order Number	Date of Change Order Award	Change Order Description
NYCT	09J0195	Information Technology Specific Cabling and Communications Projects	\$3,853,233	\$2,605,426	\$361,725	9.40%	3	9/15/16	Additional Funding for Specific Cabling and Telecommunications Projects
NYCT	08L0028	Maintenance and Support for SONET Network Fujitsu Communication Equipment	\$1,925,000	\$724,041	\$365,944	19.01%	4	8/12/16	Provide Additional Maintenance and Support Services
NYCT	1802	All-Agency Maintenance of Avaya LAN/WAN Area Network Hardware and Software	\$6,440,097	\$3,358,005	\$723,950	11.24%	4	9/9/16	Contract Extension
NYCT	CMM-1567A	Benefits Consulting Services	\$900,000	\$4,906,111	\$700,000	77.80%	N/A	9/12/16	Budget Adjustment
NYCT	P.O. 902031	Domestic and International Express Courier Services	\$921,236	\$265,140	\$147,295	15.99%	3	6/20/16**	Contract Extension
NYCT	08H9936	Installation, Maintenance and Repair of Trak Fuel Management Systems	\$897,149	\$198,781	\$188,787	21.04%	3	5/2/16**	Contract Extension

*Including any exercised options

** These items were intended for the 2nd Quarter 2016 Report

Agency	Contract Number	Contract Description	Base Contract Value*	Prior Modifications Value	Current Change Order Value	Percentage of Current Change Order Value to Base Contract Value	Change Order Number	Date of Change Order Award	Change Order Description
MTA HQ	11152-0200	Supply and Delivery of Toner	\$5,129,875	\$3,585,882	\$750,000	14.60%	No. 8	9/29/2016	Increase is necessary to pay MTA bills

*Including any exercised options

MTACC HAS NOTHING TO REPORT									
LIRR HAS NOTHING TO REPORT									
MNR HAS NOTHING TO REPORT									

**CPOC COMMITTEE CONTRACT CHANGE ORDER REPORT* - 3rd Quarter 2016
(FOR INFORMATION ONLY)**

Agency	Contract Number	Contract Description	Base Contract Value**	Prior Modifications Value	Current Change Order Value	Percentage of Current Change Order Value to Base Contract Value	Change Order Number	Date of Change Order Award	Change Order Description
MTAB&T	PSC-03-2689	Design and Design Services During Construction for Project VN-80, Upper Level Deck Rehabilitation	\$17,810,874	\$3,068,914	\$472,230	2.65%	AM 17	7/6/2016	Additional funding to provide design support services during construction at the Verrazano Narrows Bridge.
MTAB&T	RK-65A	Bronx Plaza / Structural Rehabilitation at the RFK Bridge	\$213,400,794	\$3,484,021	\$704,750	0.33%	7	7/25/2016	Adjust unit price item quantities including revision to one unit price for providing galvanized downspouts per revised Authority requirements.
MTAB&T	RK-65A	Bronx Plaza / Structural Rehabilitation at the RFK Bridge	\$213,400,794	\$4,188,771	\$391,940	0.18%	8	8/15/2016	Removal and disposal of unanticipated contaminated, non-hazardous soil.
MTAB&T	BB-28S	Sandy Restoration and Projects BB-28/BB-54, Rehabilitation of the Tunnel and Brooklyn Plaza at the Hugh L. Carey Tunnel	\$282,454,276	\$1,124,724	\$450,000	0.16%	AM 6	8/29/2016	Additional funding for camera systems and outdated servers and associated equipment.
MTAB&T	PSC--12-2906	Design Services for Reconstruction of the Upper and Lower Level Toll Plazas and Southbound Approach at the Henry Hudson Bridge	\$7,193,725	\$2,232,471	\$418,538	5.82%	5	9/15/2016	Additional Desgin services for HH-88A including review of RFIs, evaluations of contractor proposed alternatives, and resolution of field conditions.
MTAB&T	PSC--12-2906	Design Services for Reconstruction of the Upper and Lower Level Toll Plazas and Southbound Approach at the Henry Hudson Bridge	\$7,193,725	\$2,651,009	\$291,556	4.05%	6	9/20/2016	Additional Desgin services for HH-88B, investigating additional MPT alternatives, additional value engineering reviews, etc.
MTACC	C-26006	Second Avenue Subway - 63rd Street/Lexington Avenue Station Reconstruction Including Rehabilitation and Construction of Entrances	\$176,450,000	\$34,337,636	\$592,000	0.34%	190	9/28/2016	Uninterrupted Power Supply Room Permanent Cooling System
MTACC	C-26010	Second Avenue Subway - 96th Street Station Finishes and MEP Systems in the Borough of Manhattan	\$324,600,000	\$49,294,183	\$463,000	0.14%	121	7/14/2016	Con Edison Gas Layout Changes and Support
MTACC	C-26010	Second Avenue Subway - 96th Street Station Finishes and MEP Systems in the Borough of Manhattan	\$324,600,000	\$31,765,461	\$465,000	0.14%	192	9/23/2016	Addition of Flood Wall Plates
MTACC	C-26010	Second Avenue Subway - 96th Street Station Finishes and MEP Systems in the Borough of Manhattan	\$324,600,000	\$50,966,750	\$574,000	0.18%	222	9/27/2016	Modification to Power Grounding System

**CPOC COMMITTEE CONTRACT CHANGE ORDER REPORT* - 3rd Quarter 2016
(FOR INFORMATION ONLY)**

Agency	Contract Number	Contract Description	Base Contract Value**	Prior Modifications Value	Current Change Order Value	Percentage of Current Change Order Value to Base Contract Value	Change Order Number	Date of Change Order Award	Change Order Description
MTACC	C-26011	Second Avenue Subway - 72nd Street Station Finishes, Borough of Manhattan	\$258,353,000	\$32,282,599	\$295,000	0.11%	218	7/14/2016	NYCDOT LED City Street Lighting and Traffic Signal Modifications
MTACC	C-26012	Second Avenue Subway - 86th Street Station Finishes, Borough of Manhattan	\$208,376,000	\$5,397,939	\$278,800	0.13%	123	8/15/2016	Fiber Optic Rigid Galvanized Steel Conduit Changes
MTACC	CM014B	GCT Concourse and Facilities Fit-Out	\$428,900,000	\$6,613,936	\$411,720	0.10%	25	7/8/16	CS179 Coordination - Security
NYCT	S-48004	Maintenance and Technical Support for the CBTC for Queens Boulevard Line	\$156,172,932	\$0	\$750,000	0.48%	1	9/26/2016	Transponder Reader Board Racks
NYCT	T-80276	St. George Interlocking in the Borough of Staten Island	\$79,449,000	\$263,700	\$555,000	0.70%	5	7/19/2016	Installation of 6" X 10" Composite Ties and Credit for the 6" X 8" Composite Ties
NYCT	T-80276	St. George Interlocking in the Borough of Staten Island	\$79,449,000	\$263,700	\$461,000	0.58%	26	9/23/2016	Disposal of Contaminated Soil
NYCT	CM-1312	Engineering Consultant Services for New Work Car Projects	\$3,519,741	\$1,761,170	\$547,915	15.60%	8	8/18/2016	Contract Extension
NYCT	A-40610/11/12/13/14/15/16 / A-38892	Renewal of Seven Stations and Component Repair of Kings Highway and Avenue N Stations	\$80,770,000	\$669,589	\$299,000	0.37%	21	8/5/2016	Top Flange and Column Repairs at Non-Bent Locations, Column 23 Repair and Alternative Platform Edge Strip
NYCT	A-37593	South Ferry Station Terminal Complex Rehabilitation in the Borough of Manhattan	\$193,800,000	\$4,377,119	\$315,437	0.16%	26	9/23/2016	Revisions to the Access Control System for Rooms in the South Ferry Terminal Complex
NYCT	S-32723	Installation of a New Communication Based Train Control Signal System - Flushing Line	\$343,518,371	\$1,258,210	\$365,000	0.11%	38	7/20/2016	New Dark Fiber Connections at Rail Control Center and Times Square Relay Room

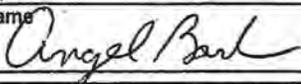
No items for LIRR

No items for MNR

***Capital change order value \$250,000 to \$750,000, and change orders from \$50,000 to \$250,000 but over 15% of the adjusted contact amount**

**** Including any exercised options**

Staff Summary

Subject Request for Authorization to Award Various Procurements
Department Executive
Department Head Name Bob Foran
Department Head Signature 
Division Head Name Angel Barbosa 

Date December 8, 2016
Vendor Name Various
Contract Number Various
Contract Manager Name Various
Table of Contents Ref #

Board Action					
Order	To	Date	Approval	Info	Other
1	Finance	12/12/2016	X		
2	Board	12/14/2016	X		

Internal Approvals			
Order	Approval	Order	Approval
1	Procurement 	3	CFO 
2	Legal 		

PURPOSE:

To obtain approval of the Board to award various contracts/contract modifications and purchase orders, as reviewed by the MTA Finance Committee.

DISCUSSION:

of Actions \$ Amount

MTAHQ proposes to award Non-competitive procurements in the following categories:

None None

MTAHQ proposes to award Competitive procurements in the following categories:

Schedules Requiring Majority Vote

Schedule F: Personal Services Contracts	3	\$ 4,977,500.00
Schedule G: Miscellaneous Service Contracts	1	\$ 244,489.00
Schedule H: Modification to Personal/Miscellaneous Service Contracts	1	\$ 975,387.49
SUBTOTAL	5	\$ 6,197,376.49

MTAHQ presents the following procurement actions for Ratification:

None None

TOTAL **5** **\$ 6,197,376.49**

BUDGET IMPACT: The purchases/contracts will result in obligating MTAHQ operating and capital funds in the amount listed. Funds are available in the current MTAHQ operating/capital budgets for this purpose.

RECOMMENDATION: That the purchases/contracts be approved as proposed. (Items are included in the resolution of approval at the beginning of the Procurement Section.)

BOARD RESOLUTION

METROPOLITAN TRANSPORTATION AUTHORITY

WHEREAS, in accordance with Section 1265-a and Section 1209 of the Public Authorities Law and the All Agency Procurement Guidelines, the Board authorizes the award of certain non-competitive purchase and public work contracts, and the solicitation and award of request for proposals in regard to purchase and public work contracts; and

WHEREAS, in accordance with the All Agency Procurement Guidelines, the Board authorizes the award of certain non-competitive miscellaneous procurement contracts, and certain change orders to procurement, public work, and miscellaneous procurement contracts; and

WHEREAS, in accordance with Section 2879 of the Public Authorities Law and the All Agency Guidelines for Procurement of Services, the Board authorizes the award of certain service contracts and certain change orders to service contracts.

NOW, the Board resolves as follows:

1. As to each purchase and public work contract set forth in the annexed Schedule A, the Board declares competitive bidding to be impractical or inappropriate for the reasons specified therein and authorizes the execution of each such contract.

2. As to each request for proposals (for purchase and public work contracts) set forth in Schedule B for which authorization to solicit proposals is requested, for the reasons specified therein the Board declares competitive bidding to be impractical or inappropriate, declares it is in the public interest to solicit competitive request for proposals and authorizes the solicitation of such proposals.

3. As to each request for proposals (for purchase and public work contracts) set forth in Schedule C for which a recommendation is made to award the contract, the Board authorizes the execution of said contract.

4. The Board ratifies each action taken set forth in Schedule D for which ratification is requested.

5. The Board authorizes the execution of each of the following for which Board authorization is required: i) the miscellaneous procurement contracts set forth in Schedule E; ii) the personal service contracts set forth in Schedule F; iii) the miscellaneous service contracts set forth in Schedule G; iv) the modifications to personal/miscellaneous service contracts set forth in Schedule H; v) the contract modifications to purchase and public work contracts set forth in Schedule I; and vi) the modifications to miscellaneous procurement contracts set forth in Schedule J.

6. The Board ratifies each action taken set forth in Schedule K for which ratification is requested.

7. The Board authorizes the budget adjustments to estimated quantity contracts set forth in Schedule L.

LIST OF PROCUREMENTS FOR BOARD APPROVAL, DECEMBER 2016
COMPETITIVE PROCUREMENTS

METROPOLITAN TRANSPORTATION AUTHORITY

Procurements Requiring Majority Vote:

F. Personal Service Contracts

(Staff Summaries required for items greater than: \$100K Sole Source; \$250K Other Non-Competitive; \$1M Competitive)

- | | | |
|-----------|--|-------------------------------|
| 1. | Newmark Grubb Knight Frank
Real Estate Brokerage Services
Contract No. 16148-0100 | \$0
(Not-to-exceed) |
| | <p>Competitively negotiated – 5 Proposals – 60 months
MTA Real Estate on behalf of Long Island Railroad through a competitive RFP process, requires the services of a Real Estate Broker to identify sites for LIRR’s warehouse/industrial requirement. Newmark Grubb Knight Frank, has been identified to provide these services to represent and advise on a potential relocation and consolidation of multiple LIRR Warehouse/Industrial facilities within Nassau and Suffolk counties preferably into one location. Newmark has agreed to rebate 30% of all commissions up to \$250k, 40% of commissions from \$250 to \$500k, 50% from \$500k to \$1M and 55% of commissions over \$1M earned to the MTA. A broker is required, because MTA Real Estate does not have the in-house resources to conduct a comprehensive space search.</p> | |
| 2. | Newmark Grubb Knight Frank
Real Estate Brokerage Services
Contract No. 16324-0100 | \$0
(Not-to-exceed) |
| | <p>Competitively negotiated – 3 Proposals – 60 months
MTA Real Estate on behalf of Metro-North Railroad through a competitive RFP process, requires the services of a Real Estate Broker to identify sites for MNRR’s warehouse/industrial requirement. Newmark Grubb Knight Frank, has been identified to provide these services to represent and advise MNRR on a potential relocation and consolidation of multiple MNRR Warehouse/Industrial facilities within Westchester County preferably into one location where Newmark has agreed to rebate 30% of all commissions up to \$250k, 40% of commissions from \$250 to \$500k, 50% from \$500k to \$1M and 55% of commissions over \$1M earned to the MTA. A broker is required because MTA Real Estate does not have the in-house resources to conduct a comprehensive space search.</p> | |

METROPOLITAN TRANSPORTATION AUTHORITY
COMPETITIVE PROCUREMENTS

3. **LAZ Parking NY/NJ LLC** **\$4,977,500** Staff Summary Attached
Parking Management Services for
The Battery Parking Garage (Not-to-exceed)
Contract No. 16207-0100

Competitively negotiated – 4 Proposals – 60 months

To recommend that the Board approve the award of a competitively-negotiated personal services contract to LAZ Parking NY / NJ LLC (“LAZ”), the incumbent, to provide parking management services for the Battery Parking Garage for an initial five-year period, and two 2-year option periods, to be exercised at MTA’s sole discretion, from January 1, 2017 thru December 31, 2024, in an amount not to exceed \$4,977,500 which includes a contingency of \$452,500. Funding for the option years will be based on Board-approved operating budgets for those years. The MTA requires the services of a parking operations firm to manage the BPG. The firm will handle all day-to-day operations and functions, including the collection of parking fees; developing strategies to increase parking revenue; developing a staffing plan, hiring and managing on-site personnel; paying all operating expenses; and entering into agreements on MTA’s behalf with service contractors to maintain and repair the garage as needed, etc. As a result of negotiations, LAZ’s Total Management Fee of \$138K per year was reduced to \$125k per year, a total savings of \$65k or 9 %. Labor costs have increased from approximately \$560,000 per year to approximately \$749,000, primarily due to the collective bargaining agreement. MTA has conducted a responsibility review and other due diligence on LAZ Parking NY / NJ LLC (“LAZ”), and has deemed the firm responsible for award.

G. Miscellaneous Service Contracts

(Staff Summaries required for all items greater than: \$100K Sole Source; \$250K Other Non-Competitive; \$1M RFP;
No Staff Summary required if Sealed Bid Procurement)

4. **IHS Global, Inc.** **\$244,489**
Economic Forecasting Services (Not-to-exceed)
Contract Nos. 15474-0100

Competitively Negotiated – 1 proposal – 60 months

Contractor to provide MTA with a regularly updated (short and long term) data series (historic and forecast) of national and regional economic and demographic variables for use in, among other purposes, budgeting and planning. Such historic and forecast data series include: US Macroeconomic, New York State and MTA Region, housing and real estate and energy-products. MTA does not have the ability or the expertise to generate these forecasts in-house. Pricing for these reports are the same prices offered to NYS agencies. The first year’s cost of \$48,898 proposed for the new contract is 4% greater than the annual price paid for the past six years under the current contract, with annual 2% increases for the remaining four years in the proposed new contract, and is deemed fair and reasonable.

METROPOLITAN TRANSPORTATION AUTHORITY
COMPETITIVE PROCUREMENTS

H. Modifications to Personal Service Contracts and Miscellaneous Service Contracts Awarded as Contracts for Services

(Approvals/Staff Summaries required for substantial change orders and change orders that cause original contract to equal or exceed monetary or durational threshold required for Board approval.)

- | | |
|---|------------------------|
| 5. Bowery Residents' Committee, Inc. | \$975,387.49 |
| Homeless Outreach Services | (Not-to-exceed) |
| Contract No. 09152-0100, S/A #10 | |

Base plus previous change orders = \$10,857,209.78

To request that the Board approve an amendment to a previously Board-approved competitively negotiated, personal services contract with Bowery Residents' Committee, Inc. This amendment includes a six-month time extension and an additional \$975,387.49 for the continuation of administering the MTA's Homeless Outreach Services Program (MTA/*Connections Outreach*), until a new competitive contract is issued and approved by the Board. The MTA/*Connections Outreach* Program addresses the needs of service-resistant, chronically homeless clients who require more intensive case management to facilitate their movement off MTA Commuter Rail property, especially at stations such as Grand Central Terminal, MNR stations in Manhattan and the Bronx, LIRR concourse at Penn Station and LIRR stations in Queens and Kings Counties. All rates as negotiated terms and condition under the base contract will remain the same and are deemed fair and reasonable.

Staff Summary

Schedule F: Personal Service Contracts

Item Number:						SUMMARY INFORMATION	
Dept & Dept Head Name: Executive, Robert Foran						Vendor Name: LAZ Parking NY / NJ LLC	
Division & Division Head Name: MTA Real Estate, Jeffrey Rosen						Contract Number: 16207-0100	
Board Reviews						Description: Parking Management Services for the Battery Parking Garage	
Order	To	Date	Approval	Info	Other	Total Amount: \$4,977,500	
1	Finance	12/12/2016	X			Contract Term (Including Options, if any) January 1, 2017 thru December 31, 2026	
2	Board	12/14/2016	X			Option(s) Included in Total Amount? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
						Renewal? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Internal Approvals						Procurement Type: <input checked="" type="checkbox"/> Competitive <input type="checkbox"/> Non-competitive	
Order	Approval	Order	Approval	Solicitation Type: <input checked="" type="checkbox"/> RFP <input type="checkbox"/> Bid <input type="checkbox"/> Other:			
1	Procurement <i>RF</i>	4	DDCR <i>MW</i>				
2	Real Estate <i>RF</i>	5	Legal <i>RS</i>				
3	CFO <i>RF</i>						
Funding Source: <input type="checkbox"/> Operating <input type="checkbox"/> Capital <input type="checkbox"/> Federal <input checked="" type="checkbox"/> Other: BPG Revenues							

Narrative

I. PURPOSE/RECOMMENDATION

To recommend that the Board approve the award of a competitively-negotiated personal services contract to LAZ Parking NY / NJ LLC ("LAZ"), the incumbent, to provide parking management services for the Battery Parking Garage for an initial five-year period, and two 2-year option periods, to be exercised at MTA's sole discretion, from January 1, 2017 thru December 31, 2024, in an amount not to exceed \$4,977,500 which includes a contingency of \$452,500. Funding for the option years will be based on Board-approved operating budgets for those years.

II. DISCUSSION

The Battery Parking Garage ("BPG") is a 2,100 space self-park parking garage in lower Manhattan, adjacent to the entrance and exit plaza of the Brooklyn Battery Tunnel. It is comprised of two separate, but fully integrated, physical structures referred to as the "Original Garage" and the "Addition", which total roughly 790,000 square feet in size. MTA B&T receives all revenue for this garage. Gross revenues in 2016 are estimated at \$11,560,700.

The MTA requires the services of a parking operations firm to manage the BPG. The firm will handle all day-to-day operations and functions, including the collection of parking fees; developing strategies to increase parking revenue; developing a staffing plan, hiring and managing on-site personnel; paying all operating expenses; and entering into agreements on MTA's behalf with service contractors to maintain and repair the garage as needed, etc.

In order to secure a new contract for management services, a Request for Proposals ("RFP") was publicly advertised and letters advising potential proposers of the RFP's availability were mailed to eighteen major parking management firms and four D/M/WBE firms. In response to the RFP four proposals were received. Proposals were submitted by ProPark America, iPark, a joint proposal from CB Richard Ellis and OnePark, and LAZ.

The Selection Committee, consisting of representatives from MTA Real Estate and B&T's Planning and Budget and Engineering Divisions evaluated the four proposals and determined that LAZ's proposal best satisfied the technical requirements of the RFP. Of the other three proposals, all lacked the required experience thresholds in terms of managing a facility similar in size and generating similar revenues, etc.

Under their current agreement, LAZ has increased gross revenue and lowered operating expenses while delivering exceptional services, even under extreme circumstances such as during hurricanes Irene and Sandy. LAZ is a full-service, parking management firm and is a wholly-owned subsidiary of LAZ Karp Associates, LLC ("LAZ Parking"), one of the largest national parking companies in the United States, operating over 2,500 parking facilities in 26 states and 321 cities, managing in excess of 878,000 parking spaces, 8,600 employees and \$930 million in parking revenues. MTA has conducted a responsibility review and other due diligence with regard to LAZ Parking and has deemed them to be responsible for award.

As a result of negotiations, LAZ's Total Management Fee of \$138K per year was reduced to \$125k per year, a total savings of \$65k or 9%. Labor costs have increased from approximately \$560,000 per year to approximately \$749,000, primarily due to the collective bargaining agreement. MTA has conducted a responsibility review and other due diligence on LAZ Parking NY / NJ LLC ("LAZ"), and has deemed the firm responsible for award.

III. D/M/WBE INFORMATION

The MTA Department of Diversity and Civil Rights has established a 15% MBE and 15%WBE on this contract. LAZ Parking NY/NJ LLC. has not completed any MTA contracts with goals; therefore, no assessment of the firm's MWDBE performance can be determined at this time.

IV. IMPACT ON FUNDING

The total cost of the contract will be paid directly from BPG revenues.

V. ALTERNATIVES

Do not Approve Award of the Contract. This alternative is not feasible. MTA and B&T do not possess the internal resources to provide the required parking management services.

Schedule G: Miscellaneous Service Contracts



Item Number: G

Vendor Name (& Location) KD Analytical, LLC
Description Maintenance contract for the "PROTECT" Chemical Detection System
Contract Term (including Options, if any) Three Years
Option(s) included in Total Amount? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Procurement Type Competitive <input checked="" type="checkbox"/> Non-competitive
Solicitation Type RFP Bid <input checked="" type="checkbox"/> Other: Sole Source

Contract Number 1000076648	AWO/Modification #
Renewal?	Yes <input checked="" type="checkbox"/> No
Total Amount:	\$1,975,000
Funding Source Operating <input type="checkbox"/> Capital <input type="checkbox"/> Federal <input type="checkbox"/> Other: <input checked="" type="checkbox"/>	
Requesting Dept/Div & Dept/Div Head Name: Procurement & Material Management, Al Muir, Sr. Director	

Discussion:

Approval is requested to award a joint Agency, non-competitive, miscellaneous service contract (one year base and 2 one year options) for maintenance to the 'PROTECT' Chemical Detection System presently installed in Grand Central Terminal (GCT) and Penn Station for MNR and LIRR, to the firm KD Analytical, LLC.

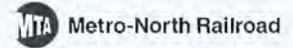
In 2006, the MTA Office of Security in conjunction with the Department of Homeland Security (DHS), evaluated and concluded that the sensor mechanisms within the devices that were developed by Argonne National Laboratories, were the premiere equipment for detecting aerosolized chemicals. The detail of the systems' software and hardware is called the "PROTECT" system, and was licensed exclusively to Smiths Detection Systems, Inc. In the event of a chemical release at either of MTA's two high-profile facilities, PROTECT will provide essential detection and notification to key response MTA, MNR, & LIRR personnel.

Currently, KD Analytical is the sole vendor for the systems integration of the PROTECT System and current holder of the PROTECT maintenance contract through an Assignment of Contract with Smiths Detection Systems, Inc., the original systems maintainer. KD has an established unique interface with DHS and Argonne where they can interact specifically regarding information and issues with the PROTECT system. Previous non-competitive contracts were approved by the MTA Board and awarded to Smiths Detection Systems Inc. for the maintenance and support of the PROTECT system for LIRR (Penn Station) and for MNR (GCT). The current maintenance and support contract is set to expire in January 2017.

Services provided by KD Analytical will be to maintain the equipment and system in optimum working condition which includes periodic on-site maintenance, system and network software support, and hardware maintenance including replacement parts and on-going testing. The MTA Department of Diversity and Civil Rights has reviewed this contract and found that due to insufficient availability of MWBE firms in the marketplace, no M/WBE goals would be assigned.

At this time, MNR seeks approval for a new one year contract with 2 one year options to KD Analytical, LLC in the overall not-to-exceed amount of \$1,975,000. (First year \$600,000 with 2 one year options totaling \$1,375,000) Under this contract, the MTA and the Railroads are afforded pricing negotiated by the U.S. General Services Administration (GSA) for comprehensive maintenance and support. Funding for this procurement will be provided through the MTA Headquarters (Office of Security) from Near Term Funds.

Schedule H: Modifications to Personal Service and Miscellaneous Service Contracts



Item Number: H

Vendor Name (& Location) Abalon Exterminating Company	Contract Number 1000003672	AWO/Modification # 4
Description MTA Multi-Agency Facility & Property Pest Control Services	Original Amount:	\$2,798,156
Contract Term (including Options, if any) 18 Months (1/1/17 – 6/30/18)	Prior Modifications:	\$2,521,754 (MNR-\$256,352, NYCT-\$2,265,402)
Option(s) included in Total Amount? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Prior Budgetary Increases:	\$
Procurement Type <input checked="" type="checkbox"/> Competitive <input type="checkbox"/> Non-competitive	Current Amount:	\$5,319,910
Solicitation Type <input type="checkbox"/> RFP <input checked="" type="checkbox"/> Bid <input type="checkbox"/> Other:	This Request:	\$1,808,458 (Est.)
Funding Source <input checked="" type="checkbox"/> Operating <input type="checkbox"/> Capital <input type="checkbox"/> Federal <input type="checkbox"/> Other:	% of This Request to Current Amount:	33%
Requesting Dept./Div. & Dept./Div. Head Name: Procurement & Material Management, Al Muir, Sr. Director	% of Modifications (including This Request) to Original Amount:	154%

Discussion:

On behalf of Metro-North Railroad (MNR) and New York City Transit (NYCT), approval is requested to extend this multi-agency miscellaneous service contract for an additional 18 months from January 1, 2017 – June 30, 2018 with Abalon Exterminating Company (“Abalon”) in the total amount of \$1,808,458. The prior contract modifications were executed by the individual agency and were necessitated by larger than expected usage.

In December 2011, Metro-North Railroad (MNR) on behalf of itself and New York City Transit (NYCT) and MTA Bus requested and received approval to award a four year multi-Agency master service agreement for facility and property pest control services. Under this contract, Abalon provides comprehensive and integrated pest control management services encompassing project management, service technicians, pesticides, multi-purpose bait stations, mechanical catch traps, pet monitors and other material and equipment necessary to treat, control and/or prevent infestation or re-infestation of pests on a scheduled and as-needed basis. The locations to be serviced include, but are not limited to: offices, employee facilities, shops, yard and maintenance/storage facilities, and loading dock areas as well as railcars, train stations and refuse rooms. The solicitation did not include Grand Central Terminal (GCT), which due to its unique environment was treated separately and solicited on a square foot basis due to the large number of individual tenants.

Given the large geographical territory of the Agencies when this procurement was first solicited, bidders were permitted to provide pricing to cover Agency requirements within any combination of four specified geographical areas (the NYC 5 Boroughs, Nassau/Suffolk, Orange/Rockland/Putnam/Westchester and Connecticut). Abalon, the low bidder submitted a bid for each of the geographical areas, which was 40% less than the next lowest bid. Abalon was deemed well qualified to provide the required level of industrial pest management services throughout the Agencies given its relevant experience with large clients, mixed-use facilities, and their pro-active approach to pest control services.

This modification is required to allow sufficient time for (i) reassignment of this multi-agency master service agreement to the MTA Business Service Center (ii) initiate and complete a consolidated pest control renewal contract covering the large geographical territory of the Agencies (iii) allow a transition period to a new supplier(s), if required.

The total cost for the 18 month contract extension is \$1,808,458 (MNR = \$403,000 & NYCT = \$1,405,458). All rates and terms and conditions previously established under the current agreement shall remain the same for the 18- month extension period, which is deemed fair and reasonable. This procurement is to be funded by each Agency’s Operating Budget.

Schedule G: Miscellaneous Service Contracts



Item Number: 2

Vendor Name (Location) Loram Maintenance of Way, Inc. (Hamel, Minnesota)
Description Provide rail-grinding services
Contract Term (including Options, if any) March 1, 2017–February 29, 2020
Option(s) included in Total Amount? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> n/a
Procurement Type <input type="checkbox"/> Competitive <input checked="" type="checkbox"/> Noncompetitive
Solicitation Type <input type="checkbox"/> RFP <input type="checkbox"/> Bid <input checked="" type="checkbox"/> Other: Noncompetitive

Contract Number RFQ 122156	Renewal? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Total Amount: \$11,081,850	
Funding Source <input checked="" type="checkbox"/> Operating <input type="checkbox"/> Capital <input type="checkbox"/> Federal <input type="checkbox"/> Other:	
Requesting Dept./Div., Dept./Div. Head Name: Department of Subways, Wynton Habersham	

Discussion:

It is requested that the Board declare, pursuant to the All-Agency Service Contract Procurement Guidelines, that a competitive selection process is inappropriate due to the existence of a single responsible source, and approve the award of a three-year noncompetitive miscellaneous service contract to Loram Maintenance of Way, Inc. (“Loram”) for rail-grinding services for NYC Transit.

Rail grinding improves the condition of the rail by reducing rail surface imperfections. This increases the useful life of the rail and, as a result of improved wheel/rail interface, reduces premature wear on subway car wheels. It is therefore a cost-effective alternative to rail and rolling stock component replacement.

Loram utilizes its own personnel and its own proprietary equipment. In the past, NYC Transit employed the rail-grinding services of Loram through a competitive solicitation with Long Island Rail Road (“LIRR”) and Metro-North Railroad (“MNR”), under which Loram was the only company offering equipment that was readily available and suitable for use in NYC Transit’s system. MNR and LIRR have different operating environments than NYC Transit (including tunnel clearances and radius of curves), and are therefore able to utilize larger 16-stone and 24-stone rail grinders. The rail grinder for NYC Transit, the self-propelled Loram 8-stone L-Series LPC1, has several features which make it operationally suited to NYC Transit’s use. This includes its smaller size (to accommodate limited tunnel clearances and tighter curves) and on-board system to collect steel dust generated from the grinder.

NYC Transit confirmed through market research that Loram is considered a premier rail grinding service provider both nationally and internationally. While there are two companies providing this service in North America, Loram has a rail grinder that is readily available and previously used in the NYC Transit system. The other provider indicated that it would have to custom design and manufacture a rail grinder to operate as required in the NYC Transit environment. A published advertisement for rail-grinding services received no response. Accordingly, NYC Transit decided to develop a noncompetitive contract independent of any LIRR/MNR efforts.

This contract is an estimated quantities contract. After a series of negotiations, Loram agreed to all-inclusive hourly rates for labor, equipment, and grinding, and further agreed to a reduction in the rates of up to 9%, resulting in an estimated savings of \$766,770 over the life of the contract. Loram has confirmed that NYC Transit is receiving its most favored customer pricing. Cost Price has determined that Loram’s rates are fair and reasonable.

Since the value of the award for this item exceeds \$1,000,000 and is a noncompetitive procurement, pursuant to Public Authorities Law Section 2879-a and Part 206 of Title 2 of the New York Codes, Rules and Regulations, this contract will be submitted to the Office of the New York State Comptroller for its formal review and approval prior to providing Loram with a Notice to Proceed.

In connection with a previous contract awarded to Loram, Loram was found to be responsible notwithstanding significant adverse information pursuant to the All-Agency Responsibility Guidelines and such responsibility finding was approved by the MTA Chairman/CEO in consultation with the MTA General Counsel in December 2009. No new SAI has been found relating to Loram and Loram has been found to be responsible.

Staff Summary

Item Number 1			
Department, Department Head Name: VP Materiel, Stephen M. Plochochi			
			
Internal Approvals			
Order	Approval	Date	Approval
1 <i>WP</i>	Materiel	6 X	CPM
2 X	Law	7 X	CFO
3 X	Budget	8 <i>SM</i>	EVP
4 X	DDCR	9 <i>WP</i>	President
5 X	Subways		

SUMMARY INFORMATION	
Vendor Name	Contract No.
Prismatic Development Corporation	C-82004
Description	
Design and Construction of the Clifton Shop in the Borough of Staten Island	
Total Amount	
\$163,750,000	
Contract Term (including Options, if any)	
43 months	
Option(s) included in Total Amount? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Renewal? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Procurement Type	
<input checked="" type="checkbox"/> Competitive <input type="checkbox"/> Noncompetitive	
Solicitation Type	
<input checked="" type="checkbox"/> RFP <input type="checkbox"/> Bid <input type="checkbox"/> Other	
Funding Source	
<input type="checkbox"/> Operating <input checked="" type="checkbox"/> Capital <input checked="" type="checkbox"/> Federal <input type="checkbox"/> Other	

PURPOSE:

To obtain approval of the Board to award a competitive contract to Prismatic Development Corporation (“Prismatic”) for the Design and Construction of the Clifton Car Repair Shop (“Clifton Shop”) in the Borough of Staten Island. The contract amount is \$163,750,000 with a term of 43 months. Additionally, in accordance with MTA policy regarding the use of design/build, and to enhance competition and defray proposal costs, this solicitation included a stipend of up to \$420,000 to be paid to each unsuccessful Step 2 proposer whose proposal met a defined standard. Accordingly, permission is also requested to pay a total stipend of \$1,680,000.

DISCUSSION:

Superstorm Sandy flooded and incapacitated the existing Staten Island Railway (“SIR”) Clifton Shop with seawater. While urgent repairs were made to the facility shortly after the storm to restore limited operations, the shop is still not operating at full pre-storm functionality and experiences flooding when there is a heavy rainfall. While making long-term repairs would restore the shop’s full functionality, making such a significant investment in an aging facility would still leave the shop vulnerable to future storm events and require the construction of a freestanding perimeter wall for protection. In addition, any improvements in the shop will need to be designed to deal with future fleet plans and maintenance practices for servicing new rail cars. When comparing the cost of this work to other alternatives that meet SIR’s current and future operational needs, replacement of the existing facility with a new state-of-the-art resilient shop emerged as the most cost-effective alternative to protect against future storm-related damages, meet SIR’s current and future demand for maintaining new rail cars, and relocate administrative staff currently situated in nearby rented space.

The new Clifton Shop will include resiliency measures such as exterior walls that can sustain Category 2 plus three-foot storm conditions as well as protection for all exterior openings and enhanced site drainage. Also included are new overhead cranes to lift rail car air conditioners, a wheel truing machine, shop equipment, parts storage, administrative space, and fire alarm and security systems while still retaining most of the existing shop equipment used to service rail cars.

An Authorizing Resolution requesting the use of a two-step competitive Request for Proposal (“RFP”) procurement process was approved by the Board in order to evaluate technical factors in addition to cost. A request for letters of interest and qualification packages was advertised, resulting in the submission of eight responses.

The Step-1 qualification packages were evaluated against preestablished selection criteria addressing relevant experience, general responsibility, financial resources, and safety record. Five firms were selected to receive the RFP: E. E. Cruz & Company, Inc. (“E. E. Cruz”); John P. Picone, Inc. (“Picone”); Judlau Contracting, Inc. (“Judlau”); Prismatic; and Skanska USA Civil Northeast (“Skanska”). These proposers, including design team consultants, had the most relevant design/build experience and key personnel to best perform this project. They also have established relationships working as contractor and designer, which is a key component to a design/build project. Three firms were not selected: Halmer International LLC; Kiewit Infrastructure Co.; and Railroad/Scalamandre, Joint Venture because their experience was deemed not in the competitive range of the five selected firms. The proposed key personnel for each team not selected did not have as sufficient experience.

The package for Step 2 of the RFP was issued to the five selected firms and initial proposals were received on from E. E. Cruz (\$179,500,000), Picone (\$218,522,000), Judlau (\$168,800,000), Prismatic (\$177,770,249), and Skanska (\$197,980,000).

Proposals were evaluated by a Selection Committee (“SC”) utilizing preestablished selection criteria addressing each proposer’s design and construction approach; team experience and qualifications; project innovations and schedule; safety and quality; qualifications and coordination of subcontractors; commissioning, DBE plans and other relevant matters. After technical factors, the overall project cost was considered. Supporting the SC’s evaluation effort was a Technical Advisory Subcommittee comprised of members from various NYC Transit departments responsible for verifying proposal compliance with the RFP requirements. The SC reviewed the technical proposals, discussed them with the Technical Advisory Subcommittee, observed the oral presentations, reviewed the price proposals submitted by each proposer, and recommended that Judlau, Prismatic, and Skanska be invited for negotiations. Skanska has the most relevant maintenance shop and design/build experience of all the proposers. Prismatic’s experience includes public sector design/build projects and facilities construction of a similar high-dollar value, and its proposal demonstrated a high comprehension of the overall project. Notably, Prismatic also developed the preliminary design the furthest as part of its proposal. Judlau submitted a well thought-out plan of approach that included design packages with a detailed phasing plan. The SC did not recommend two firms for negotiation: E. E. Cruz and Picone. E. E. Cruz’s proposal lacked detailed information on how it would maintain the existing facility during construction. Picone lacked a detailed plan on approach for each discipline. Neither firm proposed a satisfactory commissioning plan.

Negotiations were conducted with the three firms and included discussion on technical requirements, alternate design and technical concepts and assumptions, potential for schedule acceleration, and overall cost. At the conclusion of negotiations, the three firms were requested to submit their Best and Final Offer (“BAFO”). BAFO requests included alternative technical concepts specific to each proposer. Prismatic’s BAFO was \$163,750,000, which represented a reduction of \$14,020,000 or 7.9% from its initial proposal. Judlau’s BAFO was \$170,200,000, which represented an increase of \$1,400,000 or 0.8% from its initial proposal. Skanska’s BAFO was \$184,490,000, which represented a reduction of \$13,490,000 or 6.8% from its initial proposal.

Upon review of each firm’s final technical rating and BAFO, the SC unanimously recommended Prismatic for award, determining that they are technically strong and well suited to perform the work, and having submitted the lowest BAFO, will provide the best overall value to NYC Transit and SIR based on the selection criteria. Prismatic’s design approach included the most comprehensive phasing plan, which assured that shop operations will be maintained during construction. In addition, they had the strongest commitment to the commissioning process. During negotiations, Prismatic impressed the SC and convinced NYC Transit that it could produce a new maintenance facility pursuant to the specifications. Prismatic’s design consultants, Stantec and di Domenico & Partners, along with the electrical subcontractor, have extensive experience on NYC Transit projects. References were substantiated with MTA and other public agencies, who all endorsed Prismatic. Prismatic’s BAFO of \$163,750,000 is \$1,720,000 or 1% lower than the in-house estimate of \$165,470,000, was also \$6.5M to \$20.7M, or 4% to 12% lower than its competitors, and is considered to be fair and reasonable by Procurement based on a comparison to the in-house estimate and the competitive RFP. NYC Transit’s Department of Capital Program Management and SIR concur with this determination and recommend award.

In connection with a previous contract awarded to Prismatic, Prismatic was found to be responsible notwithstanding significant adverse information (“SAI”) pursuant to the All-Agency Responsibility Guidelines and such responsibility finding was approved by the MTA Chairman/CEO in consultation with the MTA General Counsel in July 2013. No new SAI has been found relating to Prismatic and Prismatic has been found to be responsible.

M/W/DBE INFORMATION:

The MTA Department of Diversity and Civil Rights has established goals at 17% DBE. Award will not be made until the Department of Diversity and Civil Rights' approval is obtained. Prismatic has not completed any MTA contract; therefore, no assessment of the firm's M/W/DBE performance can be determined at this time.

CAPITAL PROGRAM REPORTING:

This contract has been reviewed for compliance with the requirements of the 1986 legislation applicable to Capital Contract Awards and the necessary inputs have been secured from the responsible functional departments.

IMPACT ON FUNDING:

This project will be funded by the Federal Transit Administration and the MTA, and managed by NYC Transit under the MTA Capital Program. Clifton Shop funding will be provided through Superstorm Sandy repair and resiliency funds, and the cost of centralizing staff will be funded through a project in the NYC Transit core capital program. The Contract will not be awarded until funding is in place and a WAR Certificate is received.

ALTERNATIVES:

Perform the work using in-house personal. Not recommended as in-house forces do not have the resources to perform the scope of this project.

RECOMMENDATION:

It is recommended that the Board approve the award of Contract C-82004 for the Design and Construction of the Clifton Car Repair Shop in the Borough of Staten Island to Prismatic Development Corporation in the amount of \$163,750,000 and the Stipend of \$1,680,000 to the unsuccessful Step 2 proposers.

Staff Summary

Item Number 2			
Department, Department Head Name: VP Materiel, Stephen M. Plochochi			
Internal Approvals			
Order	Approval	Date	Approval
1 <i>WJ</i>	Materiel	6 X	CPM
2 X	Law	7 X	CFO
3 X	Budget	8 <i>TM</i>	EVP
4 X	DDCR	9 <i>WJ</i>	President
5 X	Subways		

SUMMARY INFORMATION	
Vendor Name	Contract No.
Schiavone Construction Co. LLC	C-48702
Description	
Viaduct and Bridge Replacement on the Myrtle Avenue Line, in the Boroughs of Brooklyn and Queens	
Total Amount	
\$80,680,000	
Contract Term (including Options, if any)	
24 months	
Option(s) included in Total Amount?	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Renewal?	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Procurement Type	
<input checked="" type="checkbox"/> Competitive <input type="checkbox"/> Noncompetitive	
Solicitation Type	
<input checked="" type="checkbox"/> RFP <input type="checkbox"/> Bid <input type="checkbox"/> Other:	
Funding Source	
<input type="checkbox"/> Operating <input checked="" type="checkbox"/> Capital <input checked="" type="checkbox"/> Federal <input type="checkbox"/> Other:	

PURPOSE:

To obtain approval of the Board to award Contract C-48702, Viaduct and Bridge Replacement on the Myrtle Avenue Line (BMT) in the Boroughs of Brooklyn and Queens to Schiavone Construction Co., LLC ("Schiavone") in the amount of \$80,680,000 and a duration of 24 months.

DISCUSSION:

This project will replace two elevated structures (the Bushwick Cut and the bridge located over the New York & Atlantic Railway) on the Myrtle Line and construct a car inspection facility at the Fresh Pond Rail Yard in Queens. The Bushwick Cut is a 310-foot viaduct located between Broadway and Myrtle Avenue and connects the Myrtle Avenue ("M") and Jamaica (J/Z) lines. The bridge is a 52-foot structure located over New York & Atlantic Railway and is adjacent to the Fresh Pond Rail Yard. Both the viaduct and the bridge are more than 100 years old, have severely deteriorated, and need to be replaced.

The work under this contract includes the demolition and replacement of the Bushwick Cut and the single-span bridge over New York and Atlantic Railway, including track and third rail. During construction, trains will not be able to access the East New York Maintenance Facility, where cars on the M Line are inspected and maintained. As a result, a two-car inspection enclosure will be constructed at the Fresh Pond Rail Yard for inspection and maintenance of the subway-car fleet that will provide shuttle service during the M Line closure.

Prior to effecting repairs on the Canarsie Tunnel, NYC Transit has an urgent need to replace both elevated structures on the M Line. These repairs will resolve structural and operational issues necessary to increase service reliability on the M Line for the customers during the tunnel rehabilitation.

An Authorizing Resolution requesting the use of a competitive Request for Proposal ("RFP") procurement process was approved by the Board in March 2016 in order that technical factors, in addition to cost, could be evaluated. In October 2016, the Board approved the Determinations and Findings under the New York Eminent Domain Procedure Law with respect to temporary residential relocations, temporary business closures, and acquisition of property interests needed to facilitate the project. The RFP was advertised in May 2016. Selection was accomplished by use of a two-step RFP process in which the most qualified firms were selected to submit technical and cost proposals in Step 2. Firms were reviewed in accordance with preestablished selection criteria stated in the RFP. For Step 1, NYC Transit's selection was based on relevant experience and general responsibility to receive a contract award, and to successfully and faithfully perform the work. For Step 2, proposers were evaluated based on their technical proposal and approach, overall project cost, and other relevant matters. Criteria focused on the ability to minimize operational impact and outages, as well as managing community impact.

Step 1: In response to NYC Transit's advertisement, 15 Qualification Packages, including (1) a Letter of Interest, (2) Schedule-J (Responsibility Questionnaire), (3) a Qualification Statement, and (4) an affirmation that the proposer will provide the appropriate equipment and staffing resources to complete the project and that the prime contractor and/or joint venture team will perform significant portions of the work, were received. The Selection Committee ("SC") reviewed the submissions and recommended the following five firms to move to Step 2: Kiewit Infrastructure Co. ("Kiewit"), Michels Corporation, Posillico Civil Inc. ("Posillico"), Schiavone, and Skanska USA Civil Northeast Inc. ("Skanska"). These firms best demonstrated the ability to perform all three portions of the project. The firms not selected, American Bridge Company; CCA Civil, Inc.; E. E. Cruz & Company, Inc.; Granite Construction Northeast Inc.; Halmar International Inc.; Judlau Contracting Inc.; Perfetto Contracting Co.; Railroad/GCCOM, Joint Venture; Tully Construction Co, Inc.; and Yonkers Contracting Co. did not demonstrate sufficient ability to perform the entire project scope, mostly with regard to constructing the temporary car inspection facility, which accounts for one-third of the project estimate.

Step 2: Technical proposals were received from four short-listed firms. Michels did not propose and indicated it could not provide a proposal within the time required. Following the Technical Advisory Committee and the SC's review and evaluation in accordance with the evaluation criteria, two firms were selected for negotiations: Kiewit, with an initial cost proposal of \$82,413,000, and Schiavone, with an initial cost proposal of \$75,351,000. The firms were chosen based on their ability to expedite the project schedule, detailed technical approach, and prior experience performing similar work. The firms not recommended for negotiations, Posillico and Skanska, met the minimum requirements of the RFP but could not provide a technical approach that would ensure timely performance of the work.

Negotiations were held October 31 through November 30, 2016. Items addressed were (1) project schedule and staffing, (2) technical solutions, including acceleration to minimize the viaduct outage, (3) terms and conditions, and (4) pricing. Proposals were received on November 2, 2016, following initial discussions with both firms: Kiewit Infrastructure Co. (\$90,784,000) and Schiavone (\$77,775,000). Pricing for both proposers increased based on clarifications to NYC Transit's technical requirements for the installation of low-vibration track, and owner-provided services associated with the bridgework at New York & Atlantic Railway. After careful review, additional clarifications were sought to address the constructability of the project milestones. Best and Final Offers ("BAFO") were received on December 1, 2016: Kiewit (\$90,990,997) and Schiavone (\$80,680,000). The revised in-house cost estimate was \$79,422,000. Both firms also submitted alternate proposals (nominally accelerating the viaduct work), which the SC ultimately determined did not provide added value in light of the additional cost.

The SC unanimously ranked Schiavone as the most technically qualified firm and unanimously recommended it for award based on the selection criteria. The SC concurred that Schiavone's BAFO provided the best value to NYC Transit. Schiavone provided a strong project team with extensive NYC Transit and elevated structure experience and a plan of approach that evoked confidence that it will achieve all project milestones within the project timeline. Schiavone brings a history of timely and/or accelerated performance of similar work in confined spaces, including work at a Long Island Rail Road Yard and a NYC Transit car washer and train storage yard; and accelerated bridgework underpinning for MTA Capital Construction and other public projects for bridge reconstruction. Schiavone's prior experience on similar projects affecting the surrounding community and ridership, including work replacing the elevated structures at the Stillwell Avenue station and accelerating reconstruction of elevated structures demonstrate its ability to complete similar work early or on time and within budget.

Schiavone's BAFO most effectively utilizes NYC Transit-supplied services for access to the car inspection facility and the bridge over the New York & Atlantic Railway. This ensures timely progression of the project, gives multiple approaches for completing the bridgework, and provides a mitigation plan to accelerate the viaduct in the future. Additionally, Schiavone proposed a one-month time savings to shorten the duration of the viaduct reconstruction work. While Kiewit's proposal cited a reduced outage and schedule, ultimately Schiavone's technical approach provided a similar outage duration with additional means for expediting the work to further minimize the project's impact on the community and operations on the M Line.

Given the critical nature of the project schedule, acceleration provisions were included in the contract, affording NYC Transit the ability to accelerate the work if the opportunity arises.

Schiavone's BAFO is \$1,258,000, or 1.6% higher than the in-house estimate, and \$10,310,997, or 11.3% less than Kiewit's BAFO. The final negotiated price of \$80,680,000 is considered fair and reasonable based on a comparison to the in-house estimate and the competitive RFP.

References checked for Schiavone were satisfactory. Bonds, financial, and insurance approval are pending. No award will be made until all such approvals are received. Additionally, Schiavone has certified that it is not on the list of firms debarred from obtaining an award under the Iran Energy Sector Divestment Law.

Schiavone is currently performing as a prime contractor (as a joint venture partner) on Contract A-36916, Dyre Avenue Station/Bridge Construction, at a value of \$16,224,000; and Contract C-26012, Second Avenue Subway, 86th Street Station Entrances, at a value of \$208,376,000.

In connection with a previous contract awarded to Schiavone, Schiavone was found to be responsible notwithstanding significant adverse information (“SAI”) pursuant to the All-Agency Responsibility Guidelines, and such responsibility finding was approved by the MTA Chairman/CEO, in consultation with the MTA General Counsel, in April 2014. No new SAI has been found relating to Schiavone and Schiavone has been found to be responsible.

Schiavone has submitted the names of 23 subcontractors executing work in excess of \$1M on this contract, performing electrical, track, micropiles, mechanical and structural steelwork; fabrication of the rail car lift, precast viaduct sections, and a pre-engineered building. In connection with a previous subcontract awarded to Kleinberg Electric, Inc. (“Kleinberg”), Kleinberg was found to be responsible notwithstanding SAI pursuant to the All-Agency Responsibility Guidelines and such responsibility finding was approved by the NYC Transit President in May 2015. No new SAI has been found relating to Kleinberg and Kleinberg has been found to be responsible.

M/D/WBE INFORMATION

The MTA Department of Diversity and Civil Rights established M/WBE goals of 15% and 15% respectively. Schiavone has submitted a utilization plan committing to exercise good faith efforts to achieve the goals during the term of the project. Schiavone has achieved its M/D/WBE goals on previous MTA contracts.

CAPITAL PROGRAM REPORTING

This contract has been reviewed for compliance with the requirements of the 1986 legislation applicable to Capital Contract Awards and the necessary inputs have been secured from the responsible functional departments.

IMPACT ON FUNDING

This contract is 100% MTA funded. Funds are available through Project ID #s T70703/04; T70703/02; T70502/39 and the balance is temporarily available in T70703/19 pending funds identified in the upcoming Plan Revision. The contract will not be awarded until a WAR Certificate is received.

ALTERNATIVES

Perform work with In-House forces. Not recommended as in-house forces are committed to other projects.

RECOMMENDATION:

It is recommended that the Board approve the award of Contract C-48702, Viaduct and Bridge Replacement on the Myrtle Avenue Line (BMT) in the boroughs of Brooklyn and Queens to Schiavone Construction Co., LLC in the amount of \$80,680,000.

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Schedule H: Modifications to Personal Service Contracts and Miscellaneous Service Contracts

 Item Number: **1**

Vendor Name (& Location) WSP SELLS HNTB, JV		Contract Number PSC-14-2957	AWO/Modification 1
Description Feasibility Study and Conceptual Design for Project RK-65B, Reconstruction of Manhattan Plaza of the RFK Bridge and Associated Ramps		Original Amount: \$3,641,416.00	
Contract Term (including Options, if any) December 24, 2014 – December 23, 2016		Prior Modifications: \$0.00	
Option(s) included in Total Amount? <input type="checkbox"/> Yes <input type="checkbox"/> No		Prior Budgetary Increases: \$0.00	
Procurement Type	<input checked="" type="checkbox"/> Competitive <input type="checkbox"/> Non-competitive	Current Amount: \$3,641,416.00	
Solicitation Type	<input checked="" type="checkbox"/> RFP <input type="checkbox"/> Bid <input type="checkbox"/> Other:	This Request: \$2,471,525.00	
Funding Source <input type="checkbox"/> Operating <input checked="" type="checkbox"/> Capital <input type="checkbox"/> Federal <input type="checkbox"/> Other:		% of This Request to Current Amount: 67.9%	
Requesting Dept/Div & Dept/Div Head Name: VP and Chief Engineer, Joe Keane		% of Modifications (including This Request) to Original Amount: 67.9%	

Discussion

B&T is seeking Board Approval in accordance with the All-Agency Guidelines for Procurement of Services to amend a personal service Contract No. PSC-14-2957 with WSP SELLS | HNTB, JV for additional work in the negotiated amount of \$2,471,525 to implement Open Road Tolling (ORT) at the Robert F. Kennedy Bridge (RFK Bridge) and for a 2-year time extension. This Contract was awarded to WSP SELLS | HNTB, JV in December 2014 on a competitive basis in the amount of \$3,641,416 for a duration of two years to conduct a feasibility study and conceptual design for Project RK-65B, Reconstruction of the Manhattan Plaza of the RFK Bridge and Associated Ramps.

As previously announced, B&T intends to implement ORT at all of its toll facilities in an expedited manner. To meet the accelerated schedule for full implementation of ORT, maximize efficiencies, minimize customer inconvenience and ensure safe passage, B&T intends to engage existing consultants and contractors to perform this work. Contract PSC-14-2957 services include design, investigation and testing necessary to determine the feasibility of potential tolling alternatives and include (i) traffic studies; (ii) coordination with other B&T and surrounding regional improvement projects; (iii) structural and geotechnical investigation; (iv) property and jurisdictional issues; (v) environmental issues; (vi) staff relocation/space repurposing; (vii) realignment/ relocation of ramps; (viii) advancing enabling projects to a 40% design level; and (ix) cost estimating. B&T informed the Board at the time that it would return and seek approval for resultant design and associated construction support services.

Under this proposed amendment the scope will be expanded to include design of new ORT gantries including related civil work at RFK Bridge, designs for a new and more technologically advanced Operations Command and Control Center (OCCC) needed to centrally monitor and control existing and new operational functions Authority-wide now to be located at the new Training Building, construction support services and drawings for demolition of the Manhattan Toll Plaza.

WSP SELLS | HNTB, JV proposed a cost of \$3,079,111.22. The negotiated amount of \$2,471,525 is 6.8% less than the Engineer's Estimate of \$2,652,000 and is considered fair and reasonable. On August 24, 2016, B&T provided verbal authorization of \$250,000 to WSP SELLS | HNTB, JV to commence the design work required in order to meet B&T's aggressive schedule.

Funding is available in the 2015-2019 Capital Program under Projects D703/AW65/D03878. (\$1,739,836) and D705/AW66/D03492 (\$731,689), and is being reallocated to establish project D703RK63 in B&T's 2015-2019 Capital Program for this RFK ORT work. Approval for other ORT related costs including system integration and ancillary work will be requested under a separate contract.

This action modifies B&T's 2015-2019 Capital Program, and the proposed modification seeks to add projects (including this one—D703RK63) related to the implementation of ORT at all B&T facilities. The funding for ORT initiatives will be achieved through efficiencies generated from other projects, including from previously planned toll plaza work that will no longer need to be performed because of ORT. No critical state of good repair work is affected as a result of these programmatic modifications.

Staff Summary

Item Number 1					
Dept & Dept Head Name: Romolo DeSantis, P.E. <i>R. DeSantis</i>					
Division & Division Head Name: Joe Keane, P.E., V.P. <i>Joe Keane</i>					
Board Reviews					
Order	To	Date	Approval	Info	Other
1	President	11/30/16			
2	MTA B&T Committee	12/12/16			
3	MTA Board	12/14/16			
Internal Approvals					
Order	Approval	Order	Approval		
1	Chief Financial Officer <i>[Signature]</i>	4	Executive Vice President		
2	General Counsel <i>[Signature]</i>	5	President <i>[Signature]</i>		
3	Chief Procurement Officer <i>[Signature]</i>				

SUMMARY INFORMATION	
Vendor Name Judlau Contracting, Inc.	Contract Number TUN-MIT-01
Description Design-Build Services for Flood Mitigation at the Hugh L. Carey Tunnel and Queens Midtown Tunnel	
Total Amount Judlau Award - \$64,784,000 Stipends - \$300,000	
Contract Term (including Options, if any) Two (2) years, six (6) months	
Option(s) included in Total Amount?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Renewal?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Procurement Type <input checked="" type="checkbox"/> Competitive <input type="checkbox"/> Non-competitive	
Solicitation Type <input checked="" type="checkbox"/> RFP <input type="checkbox"/> Bid <input type="checkbox"/> Other:	
Funding Source <input checked="" type="checkbox"/> Operating <input type="checkbox"/> Capital <input checked="" type="checkbox"/> Federal <input type="checkbox"/> Other:	

Narrative

I. PURPOSE/RECOMMENDATION

B&T is seeking Board approval under the All-Agency General Contract Procurement Guidelines to award a competitively solicited public work contract for Design-Build Services for Flood Mitigation at the Hugh L. Carey Tunnel and Queens Midtown Tunnel to Judlau Contracting, Inc. (Judlau) for a period of two years, six months at a price of \$64,784,000. In accordance with the MTA Design-Build Best Practice Guidance, in order to enhance competition and defray proposal costs, this solicitation included stipends to be paid to each unsuccessful proposer in the amount of \$100,000 whose proposal met a defined standard. Accordingly, approval is also requested to pay stipends totaling \$300,000.

II. DISCUSSION

In November 2015, the Board authorized B&T to enter into a competitive Request for Proposal (RFP) process for design-build services for Flood Mitigation at the Hugh L. Carey Tunnel (HLCT) and Queen-Midtown Tunnel (QMT). The Work requires the design, construction, operation, and maintenance of a comprehensive flood mitigation program to protect tunnel entrances and plazas at the HLCT, Governors Island Ventilation Building (GIVB) and QMT.

The service requirements were publicly advertised, four firms submitted qualification information and based on a review of their qualifications all four firms were deemed qualified to receive the RFP. All four firms submitted proposals. The design-build proposers are Judlau; Halmar International, LLC; John P. Picone and Tully Construction Co., Inc. The

(rev. 1/22/14)

Staff Summary

proposals were evaluated against established criteria set forth in the RFP, including proposed price, schedule, design-build technical approach, management approach and organizational structure. Evaluations were based on the selection criteria and oral presentations. The committee recommended Judlau as the highest rated firm. The committee's basis for the selection included: (i) innovative design and construction for the GIVB seawall and other permanent mitigation solutions; (ii) emphasis on the utilization of permanent flood mitigation solutions in lieu of deployable (temporary) solutions, which result in reduced life-cycle costs; (iii) a proposed aggressive schedule which reduces substantial completion of the Project by six months and (iv) the agreement that Judlau's proposal is the best overall value and is deemed most advantageous to B&T as compared to the other proposers.

On October 5, 2016, New York State Governor Cuomo announced the implementation of cashless all-electronic Open Road Tolling (ORT) for adoption at all B&T facilities as part of the New York Crossings Project (NYCP). This method of toll collection does not require vehicles to stop. To coordinate with the implementation of ORT, as part of the NYCP B&T is accelerating the substantial completion date of the Superstorm Sandy rehabilitation of the Hugh L. Carey Tunnel (HLCT) and Queens Midtown Tunnel (QMT) from December 11, 2018 to March 31, 2018 and from April 22, 2019 to July 9, 2018, respectively. These measures were MTA Board approved on October 28, 2016 and are presently underway.

The NYCP includes investments for protecting B&T's tunnel facilities. B&T Project TUN-MIT-01 proposes to design and construct permanent and deployable flood protection measures for the HLCT, including the GIVB, and the QMT. The flood protection systems are expected to mitigate the risk of future damage to the tunnels from water intrusion and flooding from a major storm event. The Project includes a milestone date of December 31, 2017 for the design, installation and operation of flood protection barriers at each of the eight tunnel portals in advance of substantial completion of the HLCT and QMT tunnel rehabilitation construction projects. The remaining flood protection measures will be completed by the design-build contractor and will meet or exceed the current level of protection recommended by the Federal Emergency Management Agency.

Judlau submitted a proposal in the amount of \$64,784,000. The Engineer's estimate is \$68,883,170. Negotiations are ongoing and may result in a lower negotiated price. Based on the above, the total amount of this award will not exceed \$64,784,000. The price is 6.0% below the estimate and is considered fair and reasonable.

In connection with a previous contract awarded to the Contractor, Judlau was found to be responsible notwithstanding significant adverse information (SAI) pursuant to the All-Agency Responsibility Guidelines and such responsibility finding was approved by the MTA Chairman/CEO in consultation with the MTA General Counsel on December 16, 2013. No new SAI has been found related to the Contractor and Judlau has been found to be responsible.

III. D/M/WBE INFORMATION

The MTA DDCR has established goals of 15% MBE and 15% WBE for the Contract. Judlau Contracting, Inc. continues to demonstrate good faith efforts while attempting to achieve its MWBE goals.

IV. IMPACT ON FUNDING

B&T Project TUN-MIT-01 proposes to consolidate the scope of work and funding for six MTA Board approved projects into three projects under a single procurement. B&T proposes to consolidate Projects ED010301, ED010302, ED040304 and ED050303 at the Hugh L. Carey, including the GIVB building into Project ED010301 and ED050303. B&T proposes at the QMT to consolidate Projects ED010303 and ED010304 into Project ED010304.

Funding is available in the 2010-2014 Sandy Capital Program under Projects ED010301 (\$31,722,000), ED010304 (\$22,922,000) and ED050303 (\$8,050,000) for a total of (\$62,694,000.00) and in the Operating Budget under Projects HCM-373 and QMM-354 totaling (\$2,090,000). The impact of this proposed action results in a reallocation of funds between four projects in the 2010-2014 Sandy Capital Program.

Staff Summary

V. ALTERNATIVES

There are no recommended alternatives. B&T does not possess the resources required to perform these services.

METROPOLITAN TRANSPORTATION AUTHORITY
MID-YEAR AND NOVEMBER FORECASTS vs. ACTUAL RESULTS (NON-REIMBURSABLE)
OCTOBER 2016 YEAR-TO-DATE
(\$ in millions)

	October Year-to-Date			Favorable(Unfavorable) Variance			
	Mid-Year Forecast	November Forecast	Actual	Mid-Year Forecast %	November Forecast		%
Total Revenue	\$7,136.7	\$7,152.0	\$7,135.3	(\$1.4)	(0.0)	(\$16.8)	(0.2)
Total Expenses before Non-Cash Liability Adjs	9,854.7	9,834.5	9,715.4	139.2	1.4	119.1	1.2
Depreciation	2,073.2	2,064.6	2,061.2	12.1	0.6	3.5	0.2
OPEB Obligation	1,390.5	1,392.1	1,227.7	162.7	11.7	164.4	11.8
GASB 68 Pension Expenses	369.1	37.6	259.0	109.9	29.8	(221.5)	(589.4)
Environmental Remediation	5.1	4.5	6.4	(1.3)	(25.7)	(1.9)	(42.8)
Total Expenses	\$13,692.5	\$13,333.3	\$13,269.5	\$423.0	3.1	\$63.7	0.5
Less: B&T Depreciation & GASB Adjustments	\$155.5	\$155.5	\$149.1	\$6.4	4.1	\$6.4	4.1
Adjusted Total Expenses	\$13,537.0	\$13,177.8	\$13,120.4	\$416.6	3.1	\$57.3	0.4
Net Surplus/(Deficit)	(\$6,400.3)	(\$6,025.8)	(\$5,985.1)	\$415.2	6.5	\$40.7	0.7
Subsidies	\$5,787.1	\$5,783.7	\$5,707.4	(\$79.6)	(1.4)	(\$76.3)	(1.3)
Debt Service	\$2,102.1	\$2,067.2	\$2,113.2	(\$11.2)	(0.5)	(\$46.0)	(2.2)

NOTE:

- Results are preliminary and subject to audit review
- Totals may not add due to rounding
- * Variance exceeds 100%

MTA CONSOLIDATED
EXPLANATION OF MAJOR VARIANCES BETWEEN NOVEMBER FORECAST AND ACTUAL
OCTOBER 2016 YEAR-TO-DATE
(\$ in millions)

	Favorable (Unfavorable)		Reason for Variance
	<u>Variance</u>	<u>Percent</u>	
Total Revenue	(\$16.8)	-0.2%	<p><u>NYCT</u> - (\$13.1M) unfavorable mainly due to timing of advertising revenue and lower than forecasted Paratransit Urban Tax revenue and farebox revenue, specifically subway revenue.</p> <p><u>MTA HQ</u> - (\$2.1M) unfavorable due to the timing of rental revenue, partly offset by higher Transit Museum revenue.</p> <p><u>FMTAC</u> - (\$1.4M) unfavorable, reflecting greater losses in the market value of the invested asset portfolio.</p> <p>LIRR - (\$1.1M) unfavorable mainly due to lower non-commutation ridership and advertising revenue, partially offset by higher revenues generated from rentals, special services and freight.</p> <p>MTA Bus - \$0.9M favorable primarily due to higher ridership.</p>
Total Expenses	\$57.3	0.4%	<p><u>FMTAC</u> - \$50.5M favorable primarily due to the recording of the earned premium from the ESA OCIP Workers Compensation & General Liability Deductible Reimbursement policy.</p> <p><u>MTA Bus</u> - \$42.8M favorable mainly due to the timing of OPEB and GASB 68 actuarial re-estimates and inter-agency charges, partially offset by higher payroll expenses due to rate differences.</p> <p><u>MNR</u> - \$11.7M favorable due mostly to timing of consulting services and non-cash liabilities, partially offset by higher materials costs.</p> <p><u>LIRR</u> - \$10.7M favorable mainly reflects lower miscellaneous inventory adjustments, chargeouts of pool material, a delay in the reliability centered maintenance of 15-year engine work, non-recurring engineering costs, higher vacancies, as well as lower pay rates and associated fringe costs, OPEB Current expenses due to fewer retiree/beneficiaries, and reserves for FELA Indemnity payments. These favorable results were partially offset by the timing of payments for joint facilities and higher maintenance overtime, chargeouts of materials in Engineering, traction power and public liability expenses, and credit/debit card fees.</p>

MTA CONSOLIDATED
EXPLANATION OF MAJOR VARIANCES BETWEEN NOVEMBER FORECAST AND ACTUAL
OCTOBER 2016 YEAR-TO-DATE
(\$ in millions)

	Favorable (Unfavorable)		Reason for Variance
	<u>Variance</u>	<u>Percent</u>	
			<u>B&T</u> - \$8.8M favorable mostly due to vacancies and lower overtime costs, and the timing of major maintenance projects.
			<u>Other Expense Adjustments</u> - \$8.0M favorable primarily due to timing differences in project completions.
			<u>SIR</u> - \$2.4M favorable, reflecting favorable timing impacts of payroll, overtime, and reimbursable overhead credits, and fleet maintenance and material requirements.
			<u>NYCT</u> - (\$73.7M) unfavorable primarily due to the timing of a GASB 68 pension expense adjustment of (\$257.5M), partially offset by underruns in OPEB liability expenses (\$161.0M), and lower operating expenses (\$16.8M) resulting from lower health & welfare expenses, favorable reimbursable overhead credits, and lower depreciation expenses.
			<u>HQ</u> - (\$4.2M) unfavorable due to timing in the reimbursement of IT-related labor expenses, partially offset by favorable timing of professional service contracts, maintenance service contracts, and depreciation expenses.
Subsidies	(76.3)	-1.3%	The unfavorable variance was mainly attributable to accrual timing delays for PMT and PBT, and lower Urban Tax collections due to weaker than anticipated real estate transactions in New York City.
Debt Service	(46.0)	-2.2%	Unfavorable variance of \$46 million primarily due to timing of debt service deposits, as the debt service for Transportation Revenue Bonds are pre-funded through November 15. This variance will be reversed in November.

METROPOLITAN TRANSPORTATION AUTHORITY
JULY FINANCIAL PLAN - 2016 MID-YEAR FORECAST
Consolidated Accrual Statement of Operations by Category
October 2016
(\$ in millions)

	Nonreimbursable				Reimbursable				Total			
	Mid-Year Forecast	Actual	Favorable (Unfavorable)		Mid-Year Forecast	Actual	Favorable (Unfavorable)		Mid-Year Forecast	Actual	Favorable (Unfavorable)	
			Variance	Percent			Variance	Percent			Variance	Percent
Revenue												
Farebox Revenue	\$514.4	\$514.0	(\$0.4)	(0.1)	\$0.0	\$0.0	\$0.0	-	\$514.4	\$514.0	(\$0.4)	(0.1)
Vehicle Toll Revenue	160.7	159.6	(1.1)	(0.7)	0.0	0.0	0.0	-	160.7	159.6	(1.1)	(0.7)
Other Operating Revenue	59.0	54.4	(4.5)	(7.7)	0.0	0.0	0.0	-	59.0	54.4	(4.5)	(7.7)
Capital & Other Reimbursements	0.0	0.0	0.0	-	218.1	183.5	(34.6)	(15.9)	218.1	183.5	(34.6)	(15.9)
Total Revenue	\$734.1	\$728.1	(\$6.0)	(0.8)	\$218.1	\$183.5	(\$34.6)	(15.9)	\$952.2	\$911.6	(\$40.6)	(4.3)
Expenses												
Labor:												
Payroll	\$392.5	\$388.9	\$3.6	0.9	\$78.5	\$58.9	\$19.6	24.9	\$471.0	\$447.8	\$23.1	4.9
Overtime	56.2	58.9	(2.7)	(4.7)	10.6	28.6	(18.1)	*	66.8	87.5	(20.7)	(31.0)
Health and Welfare	96.8	96.5	0.2	0.2	5.9	5.7	0.1	2.1	102.6	102.3	0.3	0.3
OPEB Current Payment	47.2	42.1	5.1	10.8	0.7	0.7	0.0	3.8	47.9	42.8	5.1	10.7
Pensions	107.8	108.3	(0.4)	(0.4)	7.5	7.5	(0.0)	(0.1)	115.3	115.8	(0.4)	(0.4)
Other Fringe Benefits	51.4	50.0	1.4	2.8	25.7	23.2	2.5	9.7	77.1	73.2	3.9	5.1
Reimbursable Overhead	(55.2)	(42.7)	(12.5)	(22.7)	55.0	42.3	12.7	23.0	(0.2)	(0.3)	0.1	80.8
Total Labor Expenses	\$696.7	\$702.0	(\$5.3)	(0.8)	\$183.9	\$167.1	\$16.8	9.1	\$880.6	\$869.1	\$11.5	1.3
Non-Labor:												
Electric Power	\$35.7	\$34.4	\$1.2	3.4	\$0.1	\$0.1	(\$0.1)	*	\$35.7	\$34.6	\$1.2	3.2
Fuel	6.4	10.5	(4.1)	(63.1)	0.0	0.0	0.0	-	6.4	10.5	(4.1)	(63.1)
Insurance	3.9	5.0	(1.0)	(26.3)	1.2	1.0	0.3	21.8	5.2	5.9	(0.8)	(14.9)
Claims	21.7	26.2	(4.4)	(20.3)	0.0	0.0	0.0	-	21.7	26.2	(4.4)	(20.3)
Paratransit Service Contracts	34.0	31.3	2.6	7.8	0.0	0.0	0.0	-	34.0	31.3	2.6	7.8
Maintenance and Other Operating Contracts	64.3	43.8	20.5	31.8	6.6	5.6	1.0	15.7	70.9	49.4	21.5	30.3
Professional Service Contracts	55.7	34.4	21.3	38.2	10.5	(3.2)	13.7	*	66.1	31.1	35.0	52.9
Materials & Supplies	57.9	49.5	8.4	14.6	15.7	12.0	3.7	23.5	73.6	61.5	12.1	16.5
Other Business Expenses	13.2	12.2	0.9	7.0	0.3	1.1	(0.8)	*	13.4	13.3	0.1	0.9
Total Non-Labor Expenses	\$292.8	\$247.3	\$45.4	15.5	\$34.3	\$16.4	\$17.8	52.0	\$327.0	\$263.8	\$63.3	19.3
Other Expense Adjustments:												
Other	4.4	2.5	1.9	43.5	0.0	0.0	0.0	-	4.4	2.5	1.9	43.5
General Reserve	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-
Total Other Expense Adjustments	\$4.4	\$2.5	\$1.9	43.5	\$0.0	\$0.0	\$0.0	-	\$4.4	\$2.5	\$1.9	43.5
Total Expenses before Non-Cash Liability Adjs.	\$993.9	\$951.8	\$42.1	4.2	\$218.1	\$183.5	\$34.6	15.9	\$1,212.1	\$1,135.4	\$76.7	6.3
Depreciation	212.6	243.5	(31.0)	(14.6)	0.0	0.0	0.0	-	212.6	243.5	(31.0)	(14.6)
OPEB Obligation	33.7	33.1	0.6	1.9	0.0	0.0	0.0	-	33.7	33.1	0.6	1.9
GASB 68 Pension Adjustment	5.6	0.8	4.9	86.4	0.0	0.0	0.0	-	5.6	0.8	4.9	86.4
Environmental Remediation	0.6	0.2	0.4	70.2	0.0	0.0	0.0	-	0.6	0.2	0.4	70.2
Total Expenses	\$1,246.4	\$1,229.4	\$17.0	1.4	\$218.1	\$183.5	\$34.6	15.9	\$1,464.6	\$1,412.9	\$51.7	3.5
Less: B&T Depreciation & GASB Adjustments	\$15.7	\$14.6	\$1.1	6.7	\$0.0	\$0.0	\$0.0	-	\$15.7	\$14.6	\$1.1	6.7
Adjusted Total Expenses	\$1,230.8	\$1,214.8	\$16.0	1.3	\$218.1	\$183.5	\$34.6	15.9	\$1,448.9	\$1,398.3	\$50.6	3.5
Net Surplus/(Deficit) excluding Subsidies and Debt Service	(\$496.7)	(\$486.7)	\$11.1	2.2	\$0.0	\$0.0	\$0.0	68.3	(\$496.7)	(\$486.7)	\$11.1	2.2
Subsidies	\$342.9	200.5	(142.4)	(41.5)	0.0	0.0	0.0	-	342.9	200.5	(142.4)	(41.5)
Debt Service	202.7	243.2	(40.5)	(20.0)	0.0	0.0	0.0	-	202.7	243.2	(40.5)	(20.0)

Note: Results are based on the preliminary close of the general ledger and are subject to review and adjustment. Please note that the current months' actuals do not include post-close adjustments, which will be captured in the subsequent month's YTD results.
-- Differences are due to rounding.

* Variance exceeds 100%.

METROPOLITAN TRANSPORTATION AUTHORITY
JULY FINANCIAL PLAN - 2016 MID-YEAR FORECAST
Consolidated Accrual Statement of Operations by Category
October Year-to-Date
(\$ in millions)

	Nonreimbursable				Reimbursable				Total			
	Mid-Year Forecast	Actual	Favorable (Unfavorable) Variance	Percent	Mid-Year Forecast	Actual	Favorable (Unfavorable) Variance	Percent	Mid-Year Forecast	Actual	Favorable (Unfavorable) Variance	Percent
Revenue												
Farebox Revenue	\$5,010.1	\$5,013.4	\$3.3	0.1	\$0.0	\$0.0	\$0.0	-	\$5,010.1	\$5,013.4	\$3.3	0.1
Vehicle Toll Revenue	1,560.6	1,565.2	4.6	0.3	0.0	0.0	0.0	-	1,560.6	1,565.2	4.6	0.3
Other Operating Revenue	566.0	556.7	(9.3)	(1.6)	0.0	0.0	0.0	-	566.0	556.7	(9.3)	(1.6)
Capital & Other Reimbursements	0.0	0.0	0.0	-	1,610.2	1,558.2	(52.0)	(3.2)	1,610.2	1,558.2	(52.0)	(3.2)
Total Revenue	\$7,136.7	\$7,135.3	(\$1.4)	(0.0)	\$1,610.2	\$1,558.2	(\$52.0)	(3.2)	\$8,746.9	\$8,693.5	(\$53.4)	(0.6)
Expenses												
Labor:												
Payroll	\$4,024.5	\$3,989.8	\$34.8	0.9	\$553.9	\$518.4	\$35.5	6.4	\$4,578.5	\$4,508.2	\$70.3	1.5
Overtime	612.1	627.4	(15.3)	(2.5)	144.8	192.7	(47.9)	(33.1)	756.9	820.2	(63.3)	(8.4)
Health and Welfare	948.7	961.7	(13.0)	(1.4)	54.5	54.1	0.4	0.7	1,003.2	1,015.8	(12.6)	(1.3)
OPEB Current Payment	469.8	472.8	(3.0)	(0.6)	7.4	6.6	0.8	11.0	477.3	479.4	(2.2)	(0.5)
Pensions	801.9	805.2	(3.3)	(0.4)	63.1	66.8	(3.7)	(5.9)	865.0	872.0	(7.0)	(0.8)
Other Fringe Benefits	639.7	729.3	(89.6)	(14.0)	185.7	186.9	(1.2)	(0.6)	825.5	916.2	(90.8)	(11.0)
Reimbursable Overhead	(346.9)	(304.8)	(42.1)	(12.1)	344.8	302.5	42.3	12.3	(2.1)	(2.3)	0.3	12.4
Total Labor Expenses	\$7,149.9	\$7,281.3	(\$131.5)	(1.8)	\$1,354.4	\$1,328.2	\$26.2	1.9	\$8,504.3	\$8,609.5	(\$105.3)	(1.2)
Non-Labor:												
Electric Power	\$350.6	\$342.8	\$7.8	2.2	\$0.7	\$1.4	(\$0.7)	*	\$351.2	\$344.2	\$7.0	2.0
Fuel	102.8	101.0	1.8	1.7	0.0	0.0	(0.0)	*	102.8	101.0	1.7	1.7
Insurance	34.2	(25.7)	59.8	*	10.3	9.6	0.8	7.4	44.5	(16.1)	60.6	*
Claims	228.4	240.3	(11.9)	(5.2)	0.0	0.0	0.0	-	228.4	240.3	(11.9)	(5.2)
Paratransit Service Contracts	326.6	318.9	7.7	2.4	0.0	0.0	0.0	-	326.6	318.9	7.7	2.4
Maintenance and Other Operating Contracts	565.2	502.6	62.5	11.1	58.9	61.3	(2.4)	(4.1)	624.1	563.9	60.1	9.6
Professional Service Contracts	388.3	299.4	88.9	22.9	61.5	44.0	17.5	28.4	449.8	343.4	106.4	23.7
Materials & Supplies	520.9	475.8	45.1	8.7	123.7	110.6	13.1	10.6	644.7	586.4	58.3	9.0
Other Business Expenses	145.4	142.6	2.8	1.9	0.6	3.0	(2.4)	*	146.1	145.7	0.4	0.3
Total Non-Labor Expenses	\$2,662.3	\$2,397.7	\$264.6	9.9	\$255.8	\$230.0	\$25.9	10.1	\$2,918.1	\$2,627.7	\$290.4	10.0
Other Expense Adjustments:												
Other	42.5	36.4	6.1	14.4	0.0	0.0	0.0	-	42.5	36.4	6.1	14.4
General Reserve	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-
Total Other Expense Adjustments	\$42.5	\$36.4	\$6.1	14.4	\$0.0	\$0.0	\$0.0	-	\$42.5	\$36.4	\$6.1	14.4
Total Expenses before Non-Cash Liability Adjs.	\$9,854.7	\$9,715.4	\$139.2	1.4	\$1,610.2	\$1,558.2	\$52.0	3.2	\$11,464.9	\$11,273.6	\$191.3	1.7
Depreciation	2,073.2	2,061.1	12.1	0.6	0.0	0.0	0.0	-	2,073.2	2,061.1	12.1	0.6
OPEB Obligation	1,390.5	1,227.7	162.8	11.7	0.0	0.0	0.0	-	1,390.5	1,227.7	162.8	11.7
GASB 68 Pension Adjustment	369.1	259.0	110.1	29.8	0.0	0.0	0.0	-	369.1	259.0	110.1	29.8
Environmental Remediation	5.1	6.4	(1.3)	(26.0)	0.0	0.0	0.0	-	5.1	6.4	(1.3)	(26.0)
Total Expenses	\$13,692.5	\$13,269.6	\$422.9	3.1	\$1,610.2	\$1,558.2	\$52.0	3.2	\$15,302.7	\$14,827.8	\$475.0	3.1
Less: B&T Depreciation & GASB Adjustments	\$155.5	\$149.1	\$6.4	4.1	\$0.0	\$0.0	\$0.0	-	\$155.5	\$149.1	\$6.4	4.1
Adjusted Total Expenses	\$13,537.0	\$13,120.5	\$416.5	3.1	\$1,610.2	\$1,558.2	\$52.0	3.2	\$15,147.2	\$14,678.6	\$468.6	3.1
Net Surplus/(Deficit) excluding Subsidies and Debt Service	(\$6,400.3)	(\$5,985.1)	\$421.6	6.6	\$0.0	\$0.0	\$0.0	*	(\$6,400.3)	(\$5,985.1)	\$421.6	6.6
Subsidies	5,787.1	5,707.4	(79.6)	(1.4)	0.0	0.0	0.0	-	5,787.1	5,707.4	(79.6)	(1.4)
Debt Service	2,102.0	2,113.2	(11.2)	(0.5)	0.0	0.0	0.0	-	2,102.0	2,113.2	(11.2)	(0.5)

Note: Results are based on the preliminary close of the general ledger and are subject to review and adjustment. Please note that the current months' actuals do not include post-close adjustments, which will be captured in the subsequent month's YTD results.
-- Differences are due to rounding.

* Variance exceeds 100%.

**METROPOLITAN TRANSPORTATION AUTHORITY
JULY FINANCIAL PLAN - 2016 MID-YEAR FORECAST
EXPLANATION OF VARIANCES BETWEEN MID-YEAR FORECAST AND ACTUAL ACCRUAL BASIS
October 2016
(\$ in millions)**

Generic Revenue or Expense Category	Nonreimb or Reimb	October		Reason for Variance	Favorable (Unfavorable)		YEAR-TO-DATE	
		Favorable (Unfavorable)			Reason for Variance			
		\$	%		\$	%		
Farebox Revenue	NR	(0.4)	(0.1)	MNR was unfavorable by (\$1.5M) due to lower ridership and the LIRR was unfavorable by (\$0.3M) due to lower yield and ridership. Partially offsetting these results was a favorable variance of \$1.2M at NYCT mainly due to higher subway ridership.	3.3	0.1	NYCT was favorable by \$10.4M due to higher average fares. MTA Bus and the LIRR were favorable by \$2.2M and \$0.7M, respectively, due to higher ridership. Partially offsetting these results was an unfavorable variance of (\$9.9M) at MNR due to lower ridership, which includes the impact of the Park Avenue Viaduct fire that occurred in May.	
Vehicle Toll Revenue	NR	(1.1)	(0.7)	Toll revenues were unfavorable primarily due to major construction work at the Queens Midtown and Hugh L. Carey Tunnels, which adversely impacted traffic volume.	4.6	0.3	Toll revenues were favorable mainly due to higher traffic volume.	
Other Operating Revenue	NR	(4.5)	(7.7)	The unfavorable outcome mainly reflects a negative shift in the market value of the invested asset portfolio at FMTAC (\$3.1M); lower paratransit Urban Tax revenue at NYCT (\$2.0M); lower rental, freight, and special services revenue at the LIRR (\$0.5M); and lower GCT rental revenue at MNR (\$0.3M). The unfavorable outcomes were partially offset by higher E-ZPass and other toll collection fees at B&T \$0.5M; and the timing of rental income and Transit Museum revenue at MTA HQ \$0.5M.	(9.3)	(1.6)	The YTD unfavorable result mostly reflects lower advertising revenue due to timing and underperforming paratransit Urban Tax revenue at NYCT (\$11.0M); lower GCT rental income due to delay tenant openings and decreased advertising revenue at MNR (\$1.9M); and a negative shift in the market value of the invested asset portfolio at FMTAC (\$1.5M). These results were partially offset by favorable variances due to higher: E-ZPass and toll collection fees at B&T \$2.7M, rental income and special services revenues at the LIRR \$1.5M; and shuttle service reimbursements at MTA Bus \$0.7M.	
Payroll	NR	3.6	0.9	The favorable variance was mainly attributable to higher vacancy levels and timing: \$2.1M at MTA HQ, \$1.5M at B&T, \$0.9M at the LIRR, and \$0.6M at SIR. These results were partially offset by unfavorable variances of (\$1.3M) at MNR due to lower reimbursable capital project activity, and (\$0.4M) at NYCT due to timing.	34.8	0.9	The favorable YTD variance mainly reflects the impact of higher vacancy levels and timing: \$19.5M at NYCT, \$9.6M at the LIRR, \$8.6M at MTA HQ, \$7.7M at B&T, and \$1.5M at SIR. These results were partially offset by overages of (\$6.3M) at MNR due to lower reimbursable capital project activity; and (\$5.8M) at MTA Bus due to delays in reimbursable projects and interagency work.	
Overtime	NR	(2.7)	(4.7)	The unfavorable variance mostly reflects overages caused by subway service delays and overcrowding, vacancy/absentee coverage requirements, and additional signal maintenance at NYCT (\$1.1M); higher routine and unscheduled maintenance at the LIRR (\$1.1M); higher running time/traffic, and vacancy/absentee coverage requirements at MTA Bus (\$0.9M); and higher MTA Police patrol coverage at MTA HQ (\$0.4M). These results were partially offset by a favorable variance of \$0.6M at MNR due to improved employee availability among conductors and vacancy/absentee coverage requirements. (See Overtime Decomposition Report for more details)	(15.3)	(2.5)	The overall YTD unfavorable variance mainly reflects subway service delays, overcrowding, and vacancy/absentee coverage requirements at NYCT (\$13.5M); higher running time/traffic, vacancy/absentee coverage requirements and rates at MTA Bus (\$3.2M); an increase in patrol coverage required by MTA Police at MTA HQ (\$1.4M); and higher routine and unscheduled maintenance at the LIRR (\$1.0M). These results were partially offset by favorable variances of \$1.7M at MNR caused by improved employee availability among conductors; \$1.1M at B&T due to timing; and \$0.9M at SIR due to the timing of project activity. (See Overtime Decomposition Report for more details)	

**METROPOLITAN TRANSPORTATION AUTHORITY
JULY FINANCIAL PLAN - 2016 MID-YEAR FORECAST
EXPLANATION OF VARIANCES BETWEEN MID-YEAR FORECAST AND ACTUAL ACCRUAL BASIS
October 2016
(\$ in millions)**

Generic Revenue or Expense Category	Nonreimb or Reimb	October		Reason for Variance	YEAR-TO-DATE		Reason for Variance
		Favorable (Unfavorable)			Favorable (Unfavorable)		
Health and Welfare	NR	0.2	0.2	MTA Bus was favorable by \$0.7M primarily due to lower medical expenses. Higher vacancies and timing were responsible for a favorable variance of \$0.3M at B&T, while timing was responsible for a favorable variance of \$0.3M at NYCT. These results were partially offset by an unfavorable variance of (\$0.8M) at SIR mainly due to timing and higher rates.	(13.0)	(1.4)	Higher rates and timing were responsible for an unfavorable variance of (\$12.2M) at NYCT. MTA Bus was unfavorable by (\$3.5M) mainly as a result of higher medical expenses. Timing was responsible for unfavorable variances of (\$1.5M), (\$0.8M) and (\$0.5M) at MTA HQ, SIR and MNR, respectively. These results were partially offset by favorable variances of \$3.6M at the LIRR and \$2.1M at B&T, due to vacancies and timing.
OPEB - Current Payment	NR	5.1	10.8	Timing was responsible for favorable variances of \$4.5M at NYCT and \$0.4M at MTA HQ. The LIRR was favorable by \$0.4M mainly due to fewer retirees.	(3.0)	(0.6)	Higher rates and timing were responsible for unfavorable variances of (\$6.2M) at NYCT and (\$0.6M) at SIR. MNR and B&T were unfavorable by (\$0.8M) and (\$0.4M), respectively, due to a greater number of retirees. Partially offsetting these results were favorable variances of \$3.5M at the LIRR due to fewer retirees, and \$0.9M at MTA HQ and \$0.7M at MTA Bus as a result of timing.
Pensions	NR	(0.4)	(0.4)	NYCT was (\$1.7M) unfavorable due to higher MABSTOA costs. This result was partially offset by favorable variances of \$1.1M at MTA HQ and \$0.5M at the LIRR due to timing.	(3.3)	(0.4)	NYCT was (\$6.8M) unfavorable due mainly to higher MABSTOA costs. Timing was mostly responsible for unfavorable variances of (\$0.6M) at B&T and (\$0.5M) at MNR, and a favorable variance of \$5.0M at the LIRR.
Other Fringe Benefits	NR	1.4	2.8	The LIRR was favorable by \$4.4M due to lower Railroad Retirement taxes and FELA indemnity reserves. MNR was favorable by \$0.3M mostly due to lower employee claims. Partially offsetting these results were unfavorable variances of (\$2.1M) at NYCT due to lower direct overhead credits, and (\$1.3M) at MTA Bus, mostly due to an increase in workers' compensation reserve requirements based on a recent actuarial update.	(89.6)	(14.0)	NYCT and MTA Bus were unfavorable by (\$83.7M) and (\$7.4M), respectively, mostly due to an increase in workers' compensation reserve requirements based on a current actuarial update. Timing was responsible for an unfavorable variance of (\$3.3M) at MTA HQ. MNR was unfavorable by (\$0.7M) mostly due to higher payroll costs. Partially offsetting these results were favorable variances of \$4.9M at the LIRR due to lower Railroad Retirement taxes and FELA indemnity reserves, and \$0.5M at B&T due to vacancies.
Reimbursable Overhead	NR	(12.5)	(22.7)	Timing and changes in project activity assumptions resulted in unfavorable variances of (\$17.8M) at MTA HQ and (\$1.0M) at MNR, as well as favorable variances of \$4.5M at NYCT and \$1.3M at the LIRR.	(42.1)	(12.1)	Timing and changes in project activity assumptions resulted in unfavorable variances of (\$64.6M) at MTA HQ and (\$1.9M) at MNR, as well as favorable variances of \$13.1M at NYCT, \$9.6M at the LIRR, and \$0.6M each at B&T, MTA Bus, and SIR.
Electric Power	NR	1.2	3.4	The favorable result was mostly due to a mix of lower rates, consumption and timing – \$1.8M at NYCT and \$0.6M at MTA HQ, partially offset by unfavorable variances of (\$0.6M) at the LIRR due to higher rates and consumption and (\$0.3M) at B&T due to timing.	7.8	2.2	The favorable result was mostly due to a mix of lower rates, consumption, and timing – \$3.6M at MNR, \$2.8M at MTA HQ, and \$2.2M at the LIRR, partially offset by an unfavorable variance of (\$1.0M) at B&T due to timing.

**METROPOLITAN TRANSPORTATION AUTHORITY
JULY FINANCIAL PLAN - 2016 MID-YEAR FORECAST
EXPLANATION OF VARIANCES BETWEEN MID-YEAR FORECAST AND ACTUAL ACCRUAL BASIS
October 2016
(\$ in millions)**

Generic Revenue or Expense Category	Nonreimb or Reimb	October		Reason for Variance	YEAR-TO-DATE		Reason for Variance
		Favorable (Unfavorable)			Favorable (Unfavorable)		
Fuel	NR	(4.1)	(63.1)	The timing of CNG fuel tax credits was chiefly responsible for the unfavorable variance of (\$4.4M) at NYCT. Other agency variances were minor.	1.8	1.7	Lower rates and consumption accounted for most of the favorable variances of \$2.1M at MTA Bus, \$1.0M at MNR, \$0.5M at B&T and \$0.3M at MTA HQ. Partially offsetting these results was an unfavorable variance of (\$2.1M) at NYCT, mostly due to the timing of CNG tax credits.
Insurance	NR	(1.0)	(26.3)	Timing was responsible for an unfavorable variance of (\$1.6M) at FMTAC and a favorable variance of \$0.3M at MTA Bus.	59.8	*	FMTAC was favorable by \$58.0M mostly due to the recording of the earned premium from the ESA OCIP Workers Compensation & General Liability Deductible Reimbursement policy. Timing was responsible for favorable variances of \$1.5M at MTA Bus, \$0.7M at MTA HQ, and \$0.6M at MNR, and an unfavorable variance of (\$0.6M) at NYCT.
Claims	NR	(4.4)	(20.3)	FMTAC was (\$4.5M) unfavorable due to an actuarial re-estimate, and MNR was (\$0.3M) unfavorable due to higher claims expenses related to the 2013 Bridgeport derailment.	(11.9)	(5.2)	FMTAC was (\$6.7M) unfavorable due to an actuarial re-estimate. Higher claims activity was responsible for unfavorable variances of (\$2.2M) at the LIRR and (\$0.8M) at MTA HQ. MNR was (\$2.2M) unfavorable due to higher claims expenses related to the 2013 Bridgeport derailment.
Paratransit Service Contracts	NR	2.6	7.8	Lower expenses mostly due to fewer trips.	7.7	2.4	Lower expenses mostly due to timing and fewer trips.
Maintenance and Other Operating Contracts	NR	20.5	31.8	The overall favorable result was mainly attributable to timing and revised assumptions: \$5.9M at B&T for major maintenance projects and the E-ZPass Customer Service Center; \$3.7M at MTA HQ for security, janitorial services, telephone usage and facility maintenance; \$3.1M at NYCT for subway car-related maintenance and auto purchases; \$2.9M at the LIRR for vegetation management, security, and platform investments; \$2.4M at MTA Bus due to project delays and interagency charges; \$1.9M at MNR reflecting an accrual adjustment and lower GCT utilities expenses; and \$0.7M at SIR for R-44 fleet maintenance.	62.5	11.1	The overall favorable result was mainly attributable to timing and revised assumptions: \$18.1M at MTA HQ for security, telephone usage and facility maintenance; \$10.7M at MNR for maintenance services, rail car repairs resulting from the 2013 Bridgeport derailment, reliability centered maintenance (RCM) technical support, M7 systems equipment replacement, and lower GCT utilities expenses; \$9.3M at B&T for major maintenance projects and the E-ZPass Customer Service Center; \$9.1M at the LIRR for vegetation management, security, platform investments, and lower parking facility maintenance; \$8.9M at MTA Bus due to delays in projects and interagency charges; \$4.5M at NYCT mainly for subway car-related expenses, building-related expenses, and lower painting costs; and \$2.0M at SIR for R-44 fleet maintenance.

**METROPOLITAN TRANSPORTATION AUTHORITY
JULY FINANCIAL PLAN - 2016 MID-YEAR FORECAST
EXPLANATION OF VARIANCES BETWEEN MID-YEAR FORECAST AND ACTUAL ACCRUAL BASIS
October 2016
(\$ in millions)**

Generic Revenue or Expense Category	Nonreimb or Reimb	October		Reason for Variance	YEAR-TO-DATE		Reason for Variance
		Favorable (Unfavorable)			Favorable (Unfavorable)		
Professional Service Contracts	NR	21.3	38.2	The overall favorable result was mainly due to timing and revised assumptions: \$11.1M at MTA HQ largely for IT-related expenses, advertising, and engineering services; \$5.3M at NYCT for bond service expenses and other various expenses; \$1.8M at the LIRR for Enterprise Asset Management initiatives, MTA chargebacks and various Maintenance of Way services; \$1.7M at B&T for engineering services and lower bond issuance expenses; \$0.8M at MTA Bus for inter-agency charges; and \$0.6M at MNR for engineering and consulting services, market research, advertising, legal services and training.	88.9	22.9	The overall favorable result was mainly due to timing and revised assumptions: \$62.4M at MTA HQ for IT-related expenses, advertising, legal and engineering services; \$9.5M at NYCT for bond services and other various expenses; \$6.5M at the LIRR for Enterprise Asset Management initiatives, the delayed purchase of a document scanner, consulting and medical services; \$5.2M at MNR for engineering, consulting, market research, advertising, legal services and training; \$3.6M at B&T for bond issuance costs; and \$1.7M at MTA Bus for inter-agency charges.
Materials & Supplies	NR	8.4	14.6	Changes in project activity levels and maintenance material requirements contributed to favorable results of \$7.6M at the LIRR, \$0.6M at NYCT, and \$0.3M at B&T.	45.1	8.7	Changes in project activity levels and related maintenance material requirements, as well as timing contributed to favorable results of \$38.7M at the LIRR (mostly delayed fleet modifications), \$5.0M at NYCT, \$4.1M at MTA Bus, \$0.8M at SIR, \$0.7M at MTA HQ, and \$0.4M at B&T, as well as the unfavorable result of (\$4.6M) at MNR.
Other Business Expenses	NR	0.9	7.0	MTA HQ was \$0.5M favorable primarily due to the timing of memberships & dues, inventory purchases at the Transit Museum, and IT expenses. B&T was \$0.4M favorable due to the timing of credit card fees.	2.8	1.9	The overall favorable result was mainly attributable to timing: \$2.6M at NYCT due to miscellaneous credits/debits; \$2.3M at MTAHQ due to memberships & dues, inventory purchases at the Transit Museum, and IT expenses; \$0.5M at the LIRR due to delayed M3 decommissioning, higher restitution of property damage, and lower office supplies, partially offset by higher credit/debit card fees and higher reserves for bad debt. These results were partially offset by unfavorable variances of (\$1.6M) at B&T due to the timing of credit card fees and (\$0.8M) at MTA Bus due to higher AFC collection fees and mobility tax.
Other Expense Adjustments	NR	1.9	43.5	Variance due to timing differences in project completions.	6.1	14.4	Variance due to timing differences in project completions.
Depreciation	NR	(31.0)	(14.6)	Timing differences in project completions and assets reaching beneficial use resulted in unfavorable variances of (\$32.2M) at NYCT and (\$1.8M) at MTA Bus, and favorable variances of \$1.3M at MTAHQ, \$1.1M at B&T, and \$0.7M at MNR.	12.1	0.6	Timing differences in project completions and assets reaching beneficial use resulted in favorable variances of \$7.1M at MTA HQ, \$6.4M at B&T, \$6.0M at NYCT, and \$2.7M at MNR, and unfavorable variances of (\$9.2M) at MTA Bus and (\$1.0M) at the LIRR.
Other Post-Employment Benefits	NR	0.6	1.9	The GASB adjustment reflects the value associated with the unfunded accrued liability for post employment health benefits. MTA Bus and SIR were favorable by \$1.6M and \$0.6M, respectively, and MTA HQ was unfavorable by (\$1.6M).	162.8	11.7	The GASB adjustment reflects the value associated with the unfunded accrued liability for post employment health benefits. NYCT and MTA Bus were favorable by \$161.0M and \$8.2M, respectively, and MTA HQ and the LIRR were unfavorable by (\$6.3M) and (\$0.4M), respectively.

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JULY FINANCIAL PLAN - 2016 MID-YEAR FORECAST
EXPLANATION OF VARIANCES BETWEEN MID-YEAR FORECAST AND ACTUAL ACCRUAL BASIS
October 2016
(\$ in millions)**

Generic Revenue or Expense Category	Nonreimb or Reimb	October		Reason for Variance	YEAR-TO-DATE		Reason for Variance
		Favorable (Unfavorable)			Favorable (Unfavorable)		
GASB #68 Pension Adjustment	NR	4.9	86.4	Reflects Agencies' adjustments to account for net pension liability. MTA Bus was favorable by \$5.7M, and MTAHQ was unfavorable by (\$0.8M).	110.1	29.8	Reflects Agencies' adjustments to account for net pension liability. NYCT, MTA Bus and MNR were favorable by \$83.2M, \$28.7M and \$21.4M, respectively, while the LIRR, MTA HQ and SIR were unfavorable by (\$22.0M), (\$0.8M) and (\$0.5M), respectively.
Environmental Remediation	NR	0.4	70.2	Variance reflects lower costs of \$0.4M at MNR.	(1.3)	(26.0)	Variance mainly reflects higher costs of (\$2.0M) at the LIRR, partially offset by lower costs of \$0.7M at MNR.
Capital & Other Reimbursements	R	(34.6)	(15.9)	Timing and changes in project activity assumptions were mostly responsible for unfavorable variances of (\$29.7M) at MTA HQ, (\$9.4M) at MNR, (\$1.9M) at MTA CC, and (\$0.6M) at B&T, and a favorable variance of \$6.7M at NYCT.	(52.0)	(3.2)	Timing and changes in project activity assumptions were mostly responsible for unfavorable variances of (\$79.7M) at MTAHQ, (\$14.5M) at MNR, (\$5.8M) at MTA CC, (\$2.8M) at B&T, (\$1.5M) at MTA Bus, and (\$0.5M) at SIR, and favorable variances of \$37.7M at NYCT and \$15.0M at the LIRR.
Payroll	R	19.6	24.9	Impact of timing, including vacancies and changes in project activity assumptions were responsible for the overall favorable variance: \$16.5M at NYCT (mainly vacancies and the timing of expenses), \$1.5M at MNR, \$0.9M at the LIRR, \$0.4M at B&T, and \$0.3M at MTA CC.	35.5	6.4	Impact of timing, including vacancies and changes in project activity assumptions were responsible for the overall favorable variance: \$19.0M at NYCT, \$8.5M at MNR, \$4.3M at the LIRR, \$1.7M at B&T, \$0.8M at both MTA HQ and MTA CC, and \$0.3M at MTA Bus.
Overtime	R	(18.1)	*	The overall unfavorable result mainly reflects the impact of timing, including vacancies, and revised project activity assumptions: (\$16.5M) at NYCT (mostly vacancy coverage in support of the Capital Track Program), (\$0.8M) at the LIRR, and (\$0.4M) at both MNR and MTA HQ. (See Overtime Decomposition Report for more details)	(47.9)	(33.1)	The overall unfavorable result mainly reflects project coverage scheduling requirements, including coverage necessitated by vacancies: (\$31.9M) at NYCT, (\$8.6M) at the LIRR, (\$5.5M) at MNR, and (\$2.7M) at MTA HQ (mostly for increased Police coverage and patrols). These results were partially offset by favorable variances of \$0.5M at SIR, and \$0.3M at B&T, due to lower project activity. (See Overtime Decomposition Report for more details)
Health and Welfare	R	0.1	2.1	Timing was responsible for a favorable variance of \$0.3M at MNR and an unfavorable variance of (\$0.4M) at NYCT. Other agency variances were minor.	0.4	0.7	Timing was responsible for favorable variances of \$1.4M, \$0.5M, and \$0.3M at MNR, B&T and MTA Bus, respectively, and unfavorable variances of (\$1.4M) at the LIRR and (\$0.7M) at NYCT.
OPEB Current Payment	R	0.0	3.8	Minor Variance	0.8	11.0	Timing was responsible for this favorable variance at NYCT.
Pensions	R	(0.0)	(0.1)	Timing was responsible for an unfavorable variance of (\$0.5M) at the LIRR. Other Agency variances were minor.	(3.7)	(5.9)	Timing was responsible for an unfavorable variance of (\$5.0M) at the LIRR, and favorable variances of \$0.8M at MNR and \$0.6M at B&T
Other Fringe Benefits	R	2.5	9.7	NYCT was favorable by \$2.2M due to the timing of project activity.	(1.2)	(0.6)	The timing of project activity was responsible for unfavorable variances of (\$1.6M) at the LIRR and (\$1.3M) at NYCT, and favorable variances of \$0.9M at MNR, \$0.4M at MTA CC, and \$0.3M at B&T.

**METROPOLITAN TRANSPORTATION AUTHORITY
JULY FINANCIAL PLAN - 2016 MID-YEAR FORECAST
EXPLANATION OF VARIANCES BETWEEN MID-YEAR FORECAST AND ACTUAL ACCRUAL BASIS
October 2016
(\$ in millions)**

Generic Revenue or Expense Category	Nonreimb or Reimb	October		Reason for Variance	YEAR-TO-DATE		Reason for Variance
		Favorable (Unfavorable)			Favorable (Unfavorable)		
Reimbursable Overhead	R	12.7	23.0	Timing and changes in project activity assumptions resulted in favorable variances of \$17.8M at MTA HQ and \$0.9M at MNR, as well as unfavorable variances of (\$4.5M) at NYCT and (\$1.3M) at the LIRR.	42.3	12.3	Timing and changes in project activity assumptions resulted in favorable variances of \$64.6M at MTA HQ and \$1.6M at MNR, as well as unfavorable variances of (\$13.1M) at NYCT, (\$9.6M) at the LIRR, and (\$0.6M) at both B&T and SIR.
Electric Power	R	(0.1)	*	Minor variance.	(0.7)	*	Timing and changes in rates resulted in an unfavorable variance of (\$0.4M) at the LIRR. Other Agency variances were minor.
Insurance	R	0.3	21.8	Minor variance.	0.8	7.4	The timing of project activity resulted in favorable variances of \$0.8M at the LIRR and \$0.3M at MTA CC, and an unfavorable variance of (\$0.3M) at MNR.
Maintenance and Other Operating Contracts	R	1.0	15.7	The results capture mainly the impact of timing and revised project activity assumptions: \$1.1M at MNR due to lower project activity, and \$0.5M at MTA CC for 2 Broadway real estate charges. Partially offsetting these results was an unfavorable variance of (\$0.7M) at NYCT due to the timing of building-related expenses and auto purchases.	(2.4)	(4.1)	The results reflect mainly the impact of timing and revised project activity assumptions: (\$4.1M) at NYCT for construction and building-related expenses; and (\$0.5M) at MNR due to higher project activity. Partially offsetting these results was a favorable variance of \$2.0M at the LIRR due to lower project activity.
Professional Service Contracts	R	13.7	*	The overall favorable result was primarily attributable to the timing of project activity: \$12.0M at MTA HQ (mainly lower West Side Yard activity); \$2.7M at MNR; \$0.8M at MTA CC; and \$0.6M at the LIRR. These results were partly offset by an unfavorable variance of (\$2.3M) at NYCT, also due to the timing of project activity.	17.5	28.4	The overall favorable result was mainly attributable to the timing of project activity: \$16.7M at MTA HQ (mainly lower West Side Yard activity); \$4.3M at MTA CC (engineering services, office equipment and IT-related invoices); and \$1.1M at MNR. These results were partly offset by an unfavorable variance of (\$4.7M) at NYCT, also due to timing.
Materials & Supplies	R	3.7	23.5	Changes in project activity levels and maintenance material requirements, as well as the timing of payments, contributed to favorable results of \$3.0M at MNR and \$0.8M at the LIRR, as well as the unfavorable result of (\$0.3M) at NYCT.	13.1	10.6	Changes in project activity levels and maintenance material requirements, as well as the timing of payments, contributed to favorable results of \$6.7M at MNR, \$4.8M at the LIRR, \$0.6M at both SIR and NYCT, and \$0.5M at MTA Bus.
Other Business Expenses	R	(0.8)	*	NYCT was (\$0.7M) unfavorable due to the timing of miscellaneous expenses/credits and job closing adjustments.	(2.4)	*	The overall unfavorable result was due to timing: \$1.8M at NYCT due to miscellaneous expenses/credits and job closing adjustments; and \$0.5M at the LIRR.
Subsidies	NR	(142.4)	(41.5)	The unfavorable variance of \$142.4 million was mainly due to timing in booking accruals for PMT (\$79.5 million) and PBT (\$48.0 million), and to unfavorable Urban Taxes (\$16.4 million) due to weaker-than-expected real estate transactions in New York City.	(79.6)	(1.4)	The unfavorable YTD variance of \$79.6 million was mainly the result of unfavorable Urban Taxes of \$45.5 million, due to weaker than expected real estate activities in New York City, and unfavorable timing differences in PBT (\$34.0 million) and MTA Bus Subsidy (\$27.6 million). This was offset by favorable subsidies from CDOT(\$11.8 million) and MRT (\$7.6 million).
Debt Service	NR	(40.5)	(20.0)	Unfavorable variance of \$40.5 million mainly due to timing of debt service deposits.	(11.2)	(0.5)	Year-to-date unfavorable variance of \$11.2 million is mostly the result of timing of debt service deposits.

METROPOLITAN TRANSPORTATION AUTHORITY
Overtime Decomposition Report
Mid-Year Forecast vs. Actuals
October 2016

The attached table presents consolidated results of overtime followed by an overtime legend.

For detailed overtime results please refer to the Agency reports located in the financial reporting sections of Agency operating committee agendas.

Below is a summary of the major consolidated variances for October 2016 (year-to-date).

2016 OVERTIME REPORTING - PRELIMINARY OCTOBER RESULTS (NON-REIMBURSABLE)

Month

Total overtime was (\$2.7M), or (5%), unfavorable to the Mid-Year Forecast.

Programmatic/Routine Maintenance was (\$2.0M) unfavorable mostly due to the replacement of defective concrete ties, rail grinding, thermite welding and other maintenance activities at the LIRR; signals work at NYCT; and the installation of bus technology and all-season tires on fleet at MTA Bus.

Vacancy/Absentee Coverage was (\$0.6M) unfavorable due to increased unavailability and vacancies among bus maintainers and operators at NYCT, and greater coverage resulting from vacant Bridge and Tunnel Officer positions at B&T. These results were partially offset by lower than forecasted tours and improved employee availability within the Transportation Department, and similarly higher availability within the Equipment Department at the LIRR; and lower vacation, sick and vacancy coverage requirements at MNR.

Other was (\$0.4M) unfavorable, due to timing-related matters at NYCT and MNR, and higher rates at the LIRR. These results were partially offset by timing differences at B&T.

Weather Emergencies was \$0.6M favorable, mostly due to fewer-than-forecasted weather events at MNR and the LIRR.

Scheduled Service was \$0.3M favorable, reflecting improved coverage due to recently graduated conductors at MNR.

METROPOLITAN TRANSPORTATION AUTHORITY
Overtime Decomposition Report
Mid-Year Forecast vs. Actuals
October 2016

YTD

Total overtime was (\$15.3M), or (2.5%) unfavorable to the Mid-Year Forecast.

Programmatic/Routine Maintenance was (\$7.8M) unfavorable, reflecting ongoing signal maintenance work at NYCT; accelerated infrastructure maintenance work, including for Grand Central Terminal, at MNR; heat-related maintenance, shop work, and the installation of select bus technology and all-season tires on fleet at MTA Bus; accelerated maintenance work conducted by the Engineering Department during scheduled track outages at the LIRR; and higher expenses at B&T.

Vacancy/Absentee Coverage was (\$7.3M) unfavorable, mostly due to coverage required for bus maintainers and bus operators at NYCT; vacant Bridge and Tunnel Officer positions at B&T; and coverage requirements at MTA Bus.

Unscheduled Service was (\$5.3M) unfavorable, mainly due to subway service delays and overcrowding at NYCT, partially offset by lower requirements at the LIRR.

Unscheduled Maintenance was (\$0.9M) unfavorable, largely caused by higher system-wide emergencies at the LIRR, including derailments at New Hyde Park, Hall, Woodside and the Speonk Yard.

Safety/Security/Law Enforcement was (\$0.3M) unfavorable due to special event coverage and arrest processing at MTA HQ

Other was \$2.7M favorable, mostly due to timing differences related to payroll and calendar cutoff dates at B&T.

Weather Emergencies was \$2.3M favorable, mostly due to fewer-than-forecasted weather events at MNR, MTA Bus and NYCT.

Scheduled Service was \$1.3M favorable, mainly due to improved availability among train engineers and conductors at MNR; lower needs at B&T; and lower holiday and crew book coverage required by the Transportation Department at the LIRR. These results were partially offset by an increase in running time caused by traffic congestion at MTA Bus; and coverage necessitated by service adjustments and changes in tour lengths at NYCT.

METROPOLITAN TRANSPORTATION AUTHORITY
Overtime Decomposition Report
Mid-Year Forecast vs. Actuals
October 2016

YTD REIMBURSABLE

Reimbursable Overtime exceeded the forecast by (\$47.9M), reflecting partially the impact of vacancies as well as coverage requirements to support higher project activity, including, but not limited to the Subway Track Program at NYCT; the annual track program, Atlantic tunnel mitigation, East Side Access, East Rail Yard, Jamaica capacity improvements and Second Track Mainline work at the LIRR; the Mainline High Speed Turnout, GCT Turnouts Switch Renewal, Power Infrastructure Restoration, Drainage and Undercutting Programs, Cyclical Track Program, Fordham Station Improvements, Hudson Line Power and Signal Infrastructure Restoration, New Haven Line (NHL) Grade Crossing Renewal, Devon Bridge Repairs, Replacement of six Anchor Bridge Substations, and NHL Replacement of Signal System at MNR; and greater Police coverage and patrols eligible for grant and security fund reimbursement at MTA HQ.

**Metropolitan Transportation Authority
2016 July Financial Plan
Non-Reimbursable/Reimbursable Overtime**
(\$ in millions)

	October			October Year-to-Date		
	Mid-Year Forecast	Actuals	Var. - Fav./(Unfav)	Mid-Year Forecast	Actuals	Var. - Fav./(Unfav)
NON-REIMBURSABLE OVERTIME						
<u>Scheduled Service</u>	\$18.6	\$18.3	\$0.3 1.7%	\$183.0	\$181.8	\$1.3 .7%
<u>Unscheduled Service</u>	\$10.8	\$11.0	(\$0.2) (1.7%)	\$107.1	\$112.4	(\$5.3) (4.9%)
<u>Programmatic/Routine Maintenance</u>	\$16.2	\$18.2	(\$2.0) (12.6%)	\$187.6	\$195.4	(\$7.8) (4.1%)
<u>Unscheduled Maintenance</u>	\$0.2	\$0.5	(\$0.3) *	\$1.5	\$2.3	(\$0.9) (60.7%)
<u>Vacancy/Absentee Coverage</u>	\$7.5	\$8.1	(\$0.6) -7.3%	\$78.4	\$85.7	(\$7.3) -9.3%
<u>Weather Emergencies</u>	\$0.8	\$0.2	\$0.6 69.7%	\$35.3	\$33.1	\$2.3 6.4%
<u>Safety/Security/Law Enforcement</u>	\$0.8	\$0.9	(\$0.1) (7.4%)	\$8.5	\$8.7	(\$0.3) (3.0%)
<u>Other</u>	\$1.3	\$1.7	(\$0.4) -27.5%	\$10.8	\$8.1	\$2.7 24.6%
Subtotal	\$56.2	\$58.9	(\$2.7) (4.7%)	\$612.1	\$627.4	(\$15.3) -2.5%
REIMBURSABLE OVERTIME	\$10.6	\$28.6	(\$18.0)	\$144.8	\$192.7	(\$47.9)
TOTAL OVERTIME	\$66.8	\$87.5	(\$20.7)	\$756.9	\$820.1	(\$63.3)

* Exceeds 100%

NOTES: Totals may not add due to rounding.
Percentages are based on each type of Overtime and not on Total Overtime.
SIR Overtime data is included in "Other"

METROPOLITAN TRANSPORTATION AUTHORITY
2016 Overtime Reporting
Overtime Legend

<u>Type</u>	<u>Definition</u>
<i>Scheduled Service</i>	Crew book/Regular Run/Shift hours (above 8 hours) required by train crews, bus/tower/block operators, transportation supervisors/dispatchers, fare sales and collection, Train & Engineers, as well as non-transportation workers whose work is directly related to providing service (includes coverage for holidays).
<i>Unscheduled Service</i>	Service coverage resulting from extraordinary events not related to weather, such as injuries, mechanical breakdowns, unusual traffic, tour length, late tour relief, and other requirements that arise that are non-absence related.
<i>Programmatic/Routine Maintenance</i>	<i>Program Maintenance</i> work for which overtime is planned (e.g. Railroad Tie Replacement, Sperry Rail Testing, Running Board Replacement Programs). This also includes <i>Routine Maintenance</i> work for which OT has been planned, as well as all other maintenance <u>not resulting from extraordinary events</u> , including running repairs. Program/Routine maintenance work is usually performed during hours that are deemed more practical in order to minimize service disruptions, and includes contractual scheduled pay over 8 hours.
<i>Unscheduled Maintenance</i>	Resulting from an <u>extraordinary event</u> (not weather-related) requiring the use of unplanned maintenance to perform repairs on trains, buses, subway and bus stations, depots, tracks and administrative and other facilities, including derailments, tour length and weekend coverage.
<i>Vacancy/Absentee Coverage</i>	Provides coverage for an absent employee or a vacant position.
<i>Weather Emergencies</i>	Coverage necessitated by extreme weather conditions (e.g. snow, flooding, hurricane, and tornadoes), as well as preparatory and residual costs.
<i>Safety/Security/Law Enforcement</i>	Coverage required to provide additional customer & employee protection and to secure MTA fleet facilities, transportation routes, and security training.
<i>Other</i>	Includes overtime coverage for clerical, administrative positions that are eligible for overtime, and miscellaneous overtime.
<i>Reimbursable Overtime</i>	Overtime incurred to support projects that are reimbursed from the MTA Capital Program and other funding sources.

METROPOLITAN TRANSPORTATION AUTHORITY
July Financial Plan - 2016 Mid-Year Forecast
Consolidated Accrual Subsidy Detail
October 2016
(\$ in millions)

	Current Month			Year-to-Date		
	Mid-Year Forecast	Actual	Variance	Mid-Year Forecast	Actual	Variance
Accrued Subsidies:						
<i>Dedicated Taxes</i>						
Mass Transportation Operating Assistance Fund (MMTOA)	\$0.0	-	-	\$1,668.0	1,668.0	0.0
Petroleum Business Tax	48.0	-	(48.0)	503.2	469.2	(34.0)
MRT 1 (Gross)	27.0	26.4	(0.6)	270.5	272.8	2.4
MRT 2 (Gross)	10.6	11.1	0.5	101.7	106.9	5.2
Urban Tax	64.4	48.0	(16.4)	684.0	638.1	(45.9)
Investment Income	0.0	-	-	0.9	0.9	-
	\$150.0	\$85.5	(\$64.6)	\$3,222.3	\$3,154.0	(\$68.4)
<i>New State Taxes and Fees</i>						
Payroll Mobility Taxes	133.2	53.8	(79.5)	1,143.8	1,151.2	7.3
Payroll Mobility Tax Replacement Funds	-	-	-	186.8	186.8	-
MTA Aid Taxes ¹	-	-	-	224.7	225.5	0.8
	\$133.2	\$53.8	(\$79.5)	\$1,555.2	\$1,563.4	\$8.2
<i>State and Local Subsidies</i>						
NYS Operating Assistance	-	-	-	187.9	187.9	-
NYC and Local 18b:						
New York City	-	-	-	125.5	125.5	-
Nassau County	-	-	-	11.6	11.6	-
Suffolk County	-	-	-	7.5	7.5	-
Westchester County	-	-	-	7.3	7.3	-
Putnam County	-	-	-	0.4	0.4	-
Dutchess County	-	-	-	0.4	0.4	-
Orange County	-	-	-	0.1	0.1	-
Rockland County	-	-	-	0.0	0.0	-
CDOT Subsidies	6.0	12.4	6.3	88.6	100.4	11.8
Station Maintenance	14.4	13.5	(0.9)	138.4	134.8	(3.6)
	\$20.4	\$25.9	\$5.4	\$567.8	\$576.0	\$8.2
Sub-total Dedicated Taxes & State and Local Subsidies	\$303.7	\$165.1	(\$138.6)	\$5,345.3	\$5,293.3	(\$52.0)
City Subsidy to MTA Bus	39.2	35.4	(3.8)	382.7	355.1	(27.6)
City Subsidy to SIRTOA	0.0	0.0	-	59.0	59.0	-
Total Dedicated Taxes & State and Local Subsidies	\$342.9	\$200.5	(\$142.4)	\$5,787.1	\$5,707.4	(\$79.6)
<i>Inter-Agency Subsidy Transactions</i>						
B&T Operating Surplus Transfer	61.6	(57.6)	(119.2)	613.0	518.5	(94.5)
	\$61.6	(\$57.6)	(\$119.2)	\$613.0	\$518.5	(\$94.5)
Total Accrued Subsidies	\$404.5	\$142.9	(\$261.7)	\$6,400.1	\$6,225.9	(\$174.2)

¹ License, Vehicle Registration, Taxi and Auto Rental Fees
Note: Differences are due to rounding.

METROPOLITAN TRANSPORTATION AUTHORITY
July Financial Plan - 2016 Mid-Year Forecast
Consolidated Accrual Subsidy Detail
Explanation of Variances
(\$ in millions)

October 2016

Accrued Subsidies	Variance \$	Variance %	Explanations
Petroleum Business Tax	(48.0)	-100.0%	The unfavorable variances for the month and YTD reflected mostly timing related differences in booking accruals by MTA Accounting.
MRT(b) 2 (Gross)	0.5	4.2%	MRT-2 transactions were above the forecast for the month and YTD due to better-than-expected mortgage transactions.
Urban Tax	(16.4)	-25.5%	Urban Tax transactions were unfavorable to the forecast for the month and YTD due to weaker than expected real estate activities in New York City.
Payroll Mobility Taxes	(79.5)	-59.6%	PMT transactions for the month were unfavorable primarily due to timing of accruals by MTA Accounting. YTD transactions were close to the forecast.
CDOT Subsidies	6.3	> 100%	The favorable variances for the month and YTD were due primarily to timing.
Station Maintenance	(0.9)	-6.3%	The slightly unfavorable variances for the month and YTD were due primarily to timing.
City Subsidy to MTA Bus	(3.8)	-9.8%	Variance was mostly timing related. Drawdowns are related to the timing of cash obligations for MTA Bus.
B&T Operating Surplus Transfer	(119.2)	> (100%)	The unfavorable variance for the month and YTD were primarily due to the timing of accruals.

Year-to-Date

Accrued Subsidies	Variance \$	Variance %	Explanations
Petroleum Business Tax	(34.0)	-6.8%	See explanation for the month.
MRT(b) 2 (Gross)	5.2	5.1%	See explanation for the month.
Urban Tax	(45.9)	-6.7%	See explanation for the month.
Payroll Mobility Taxes	7.3	0.6%	See explanation for the month.
Payroll Mobility Tax Replacement Funds	-	0.0%	See explanation for the month.
CDOT Subsidies	11.8	13.3%	See explanation for the month.
Station Maintenance	(3.6)	-2.6%	See explanation for the month.
City Subsidy to MTA Bus	(27.6)	-7.2%	See explanation for the month.

METROPOLITAN TRANSPORTATION AUTHORITY
 July Financial Plan - 2016 Mid-Year Forecast
 Cash Subsidy Detail by Agency
 (\$ in millions)

October 2016

	NYC Transit			Commuter Railroads			SIR			MTA Bus			MTAHQ			TOTAL		
	Mid-Year Forecast	Actual	Variance	Mid-Year Forecast	Actual	Variance	Mid-Year Forecast	Actual	Variance	Mid-Year Forecast	Actual	Variance	Mid-Year Forecast	Actual	Variance	Mid-Year Forecast	Actual	Variance
Cash Subsidies:																		
Dedicated Taxes																		
MMTOA ^(a)	\$133.0	133.0	0.0	\$64.5	64.5	0.0	\$0.5	0.5	0.0	\$0.0	\$0.0	0.0	\$0.0	\$0.0	0.0	\$198.0	\$198.0	0.0
Petroleum Business Tax	51.2	53.0	1.8	9.0	9.4	0.3	-	-	-	-	-	-	-	-	-	60.3	62.4	2.1
MRT ^(b) 1 (Gross)	-	-	-	-	-	-	-	-	-	-	-	-	27.0	32.3	5.3	27.0	32.3	5.3
MRT ^(b) 2 (Gross)	-	-	-	-	-	-	-	-	-	-	-	-	10.6	13.1	2.5	10.6	13.1	2.5
Other MRT ^(b) Adjustments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.0
Urban Tax	70.7	115.8	45.2	-	-	-	-	-	-	-	-	-	-	-	-	70.7	115.8	45.2
Investment Income	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.0
	\$254.9	\$301.9	\$47.0	\$73.6	\$73.9	\$0.3	\$0.5	\$0.5	\$0.0	\$0.0	\$0.0	\$0.0	\$37.7	\$45.4	\$7.7	\$366.6	\$421.6	\$55.0
New State Taxes and Fees																		
Payroll Mobility Tax	47.2	60.0	12.8	13.3	17.0	3.6	-	-	-	-	-	-	30.7	39.0	8.3	91.3	116.0	24.7
Payroll Mobility Tax Replacement Funds	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.0
MTA Aid ^(c)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.0
	\$47.2	\$60.0	\$12.8	\$13.3	\$17.0	\$3.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$30.7	\$39.0	\$8.3	\$91.3	\$116.0	\$24.7
State and Local Subsidies																		
NYS Operating Assistance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.0
NYC and Local 18b:																		
New York City	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.0
Nassau County	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.0
Suffolk County	-	-	-	-	1.9	1.9	-	-	-	-	-	-	-	-	-	0.0	1.9	1.9
Westchester County	-	-	-	-	1.8	1.8	-	-	-	-	-	-	-	-	-	0.0	1.8	1.8
Putnam County	-	-	-	-	0.1	0.1	-	-	-	-	-	-	-	-	-	0.0	0.1	0.1
Dutchess County	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.0
Orange County	-	-	-	-	0.0	0.0	-	-	-	-	-	-	-	-	-	0.0	0.0	0.0
Rockland County	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.0
CDOT Subsidies	-	-	-	6.0	15.5	9.5	-	-	-	-	-	-	-	-	-	6.0	15.5	9.5
Station Maintenance	-	-	-	-	19.9	19.9	-	-	-	-	-	-	-	-	-	0.0	19.9	19.9
	\$0.0	\$0.0	\$0.0	\$6.0	\$39.2	\$33.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$6.0	\$39.2	\$33.2
Sub-total Dedicated Taxes & State and Local Subsidies	\$302.1	\$361.9	\$59.8	\$92.9	\$130.1	\$37.1	\$0.5	\$0.5	\$0.0	\$0.0	\$0.0	\$0.0	\$68.4	\$84.4	\$16.1	\$463.9	\$576.8	\$113.0
City Subsidy to MTA Bus	-	-	-	-	-	-	-	-	-	18.5	18.5	-	-	-	-	18.5	18.5	0.0
Total Dedicated Taxes & State and Local Subsidies	\$302.1	\$361.9	\$59.8	\$92.9	\$130.1	\$37.1	\$0.5	\$0.5	\$0.0	\$18.5	\$18.5	\$0.0	\$68.4	\$84.4	\$16.1	\$482.4	\$595.3	\$113.0
Inter-Agency Subsidy Transactions																		
B&T Operating Surplus Transfer	20.4	20.3	(0.1)	28.0	29.3	1.3	-	-	-	-	-	-	-	-	-	48.3	49.5	1.2
	\$20.4	\$20.3	(\$0.1)	\$28.0	\$29.3	\$1.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$48.3	\$49.5	\$1.2
Total Cash Subsidies	\$322.5	\$382.1	\$59.6	\$120.9	\$159.4	\$38.5	\$0.5	\$0.5	\$0.0	\$18.5	\$18.5	\$0.0	\$68.4	\$84.4	\$16.1	\$530.7	\$644.9	\$114.2

^(a) Metropolitan Mass Transportation Operating Assistance Fund
^(b) License, Vehicle Registration, Taxi and Auto Rental Fees
 Note: Differences are due to rounding.

METROPOLITAN TRANSPORTATION AUTHORITY
July Financial Plan - 2016 Mid-Year Forecast
Cash Subsidy Detail by Agency
(\$ in millions)

Year-to-Date

Cash Subsidies:	NYC Transit			Commuter Railroads			SIR			MTA Bus			MTAHQ			TOTAL		
	Mid-Year Forecast	Actual	Variance	Mid-Year Forecast	Actual	Variance	Mid-Year Forecast	Actual	Variance	Mid-Year Forecast	Actual	Variance	Mid-Year Forecast	Actual	Variance	Mid-Year Forecast	Actual	Variance
Dedicated Taxes																		
MMTOA ^(a)	\$646.2	\$646.2	\$0.0	\$313.6	\$313.6	\$0.0	\$2.3	\$2.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	962.0	\$962.0	\$0.0
Petroleum Business Tax	436.2	444.7	8.4	77.0	78.5	1.5	-	-	-	-	-	-	-	-	-	513.2	523.1	9.9
MRT ^(b) 1 (Gross)	-	0.0	-	-	0.0	-	-	0.0	-	-	-	-	273.4	276.4	3.0	273.4	276.4	3.0
MRT ^(b) 2 (Gross)	-	0.0	-	-	0.0	-	-	0.0	-	-	-	-	101.6	106.3	4.7	101.6	106.3	4.7
Other MRT ^(b) Adjustments	-	-	-	-	-	-	-	-	-	-	-	-	(3.8)	(3.8)	-	(3.8)	(3.8)	-
Urban Tax	748.4	719.1	(29.3)	-	-	-	-	-	-	-	-	-	-	-	-	748.4	719.1	(29.3)
Investment Income	-	-	-	0.9	0.6	(0.3)	-	-	-	-	-	-	-	-	-	0.9	0.6	(0.3)
	\$1,830.8	\$1,809.9	(\$20.9)	\$391.5	\$392.7	\$1.2	\$2.3	\$2.3	\$0.0	\$0.0	\$0.0	\$0.0	\$371.3	\$379.0	\$7.7	\$2,595.7	\$2,583.8	(\$12.0)
New State Taxes and Fees																		
Payroll Mobility Tax	619.6	629.7	10.1	185.2	189.5	4.3	-	-	-	-	-	-	337.2	338.9	1.8	1,142.0	1,158.2	16.2
Payroll Mobility Tax Replacement Funds	141.8	141.8	-	42.0	42.0	-	-	-	-	-	-	-	-	-	-	183.8	183.8	-
MTA Aid ^(c)	174.3	187.7	13.4	51.6	56.9	5.3	-	-	-	-	-	-	-	-	-	225.9	244.6	18.7
	\$935.7	\$959.2	\$23.5	\$278.8	\$288.4	\$9.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$337.2	\$338.9	\$1.8	\$1,551.6	\$1,586.6	\$34.9
State and Local Subsidies																		
NYS Operating Assistance	79.1	79.1	0.0	14.6	14.6	-	0.3	0.3	(0.0)	-	-	-	-	-	-	94.0	94.0	-
NYC and Local 18b:	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	-
New York City	123.1	123.1	-	1.4	0.9	(0.5)	0.6	0.6	-	-	-	-	-	-	-	125.1	124.6	(0.5)
Nassau County	-	-	-	8.7	5.8	(2.9)	-	-	-	-	-	-	-	-	-	8.7	5.8	(2.9)
Suffolk County	-	-	-	5.6	13.2	7.5	-	-	-	-	-	-	-	-	-	5.6	13.2	7.5
Westchester County	-	-	-	5.5	7.3	1.8	-	-	-	-	-	-	-	-	-	5.5	7.3	1.8
Putnam County	-	-	-	0.3	0.4	0.1	-	-	-	-	-	-	-	-	-	0.3	0.4	0.1
Dutchess County	-	-	-	0.3	0.2	(0.1)	-	-	-	-	-	-	-	-	-	0.3	0.2	(0.1)
Orange County	-	-	-	0.1	0.1	0.0	-	-	-	-	-	-	-	-	-	0.1	0.1	0.0
Rockland County	-	-	-	0.0	0.0	0.0	-	-	-	-	-	-	-	-	-	0.0	0.0	0.0
CDOT Subsidies	-	-	-	87.0	119.3	32.3	-	-	-	-	-	-	-	-	-	87.0	119.3	32.3
Station Maintenance	-	-	-	94.5	67.8	(26.7)	-	-	-	-	-	-	-	-	-	94.5	67.8	(26.7)
Resource to Reduce Pension Liability	-	-	-	70.0	70.0	-	-	-	-	-	-	-	-	-	-	70.0	70.0	-
NYCT Charge Back of MTA Bus Debt Service	(11.5)	(11.5)	-	-	-	-	-	-	-	-	-	-	-	-	-	(11.5)	(11.5)	-
	\$190.7	\$190.7	\$0.0	\$288.0	\$299.7	\$11.7	\$0.8	\$0.8	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$479.5	\$491.2	\$11.7
Sub-total Dedicated Taxes & State and Local Subsidies	\$2,957.1	\$2,959.7	\$2.7	\$958.2	\$980.8	\$22.5	\$3.1	\$3.1	(\$0.0)	\$0.0	\$0.0	\$0.0	\$708.4	\$717.9	\$9.5	\$4,626.9	\$4,661.5	\$34.7
City Subsidy to MTA Bus	-	-	-	-	-	-	-	-	-	\$225.2	274.5	49.3	-	-	-	225.2	274.5	49.3
City Subsidy to SIRTOA	-	-	-	-	-	-	36.1	-	(36.1)	-	-	-	-	-	-	36.1	-	(36.1)
Total Dedicated Taxes & State and Local Subsidies	\$2,957.1	\$2,959.7	\$2.7	\$958.2	\$980.8	\$22.5	\$39.2	\$3.1	(\$36.1)	\$225.2	\$274.5	\$49.3	\$708.4	\$717.9	\$9.5	\$4,888.2	\$4,936.0	\$47.8
Inter-Agency Subsidy Transactions																		
B&T Operating Surplus Transfer	250.9	255.8	4.9	346.5	356.0	9.5	-	-	-	-	-	-	-	-	-	597.4	611.8	14.4
	\$250.9	\$255.8	\$4.9	\$346.5	\$356.0	\$9.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$597.4	\$611.8	\$14.4
Total Cash Subsidies	\$3,208.0	\$3,215.5	\$7.5	\$1,304.7	\$1,336.8	\$32.1	\$39.2	\$3.1	(\$36.1)	\$225.2	\$274.5	\$49.3	\$708.4	\$717.9	\$9.5	\$5,485.6	\$5,547.8	\$62.3

¹ Metropolitan Mass Transportation Operating Assistance Fund

² License, Vehicle Registration, Taxi and Auto Rental Fee

Note: Differences are due to rounding.

METROPOLITAN TRANSPORTATION AUTHORITY
July Financial Plan - 2016 Mid-Year Forecast
Consolidated Subsidy Cash
Explanation of Variances
(\$ in millions)

October 2016

Cash Subsidies	Variance \$	Variance %	Explanations
Petroleum Business Tax	2.1	3.5%	PBT receipts were slightly favorable to the forecast for the month and YTD due to higher receipts through October than anticipated in the Mid-Year forecast.
MRT ^(b) 1 (Gross)	5.3	19.6%	The variance was above the forecast for the month due to favorable MRT-1 cash receipts. YTD variance was close to the target.
MRT ^(b) 2 (Gross)	2.5	23.0%	The variance was above the forecast for the month and YTD due to favorable MRT-2 cash receipts.
Urban Tax	45.2	63.9%	Urban Tax receipts were favorable to the forecast for the month, however YTD receipts were unfavorable due to weaker-than-expected commercial real estate activities in New York City.
Payroll Mobility Tax	24.7	27.1%	Payroll Mobility Tax cash receipts were above the forecast for the month; YTD receipts were close to the target.
Suffolk County - 18b	1.9	> 100%	The favorable variances for the month and YTD were due to timing of receipt of payment.
Westchester County	1.8	> 100%	The favorable variances for the month and YTD were due to timing of receipt of payment.
Putnam County -18b	0.1	> 100%	The favorable variances for the month and YTD were primarily due to timing of receipt of payment.
CDOT Subsidies	9.5	> 100%	The favorable variances for the month and YTD were due to timing.
Station Maintenance	19.9	> 100%	The favorable variance for the month was primarily due to timing of receipt of payment. YTD receipts were unfavorable also due to timing.

Year-to-Date

Cash Subsidies	Variance \$	Variance %	Explanations
Petroleum Business Tax	9.9	1.9%	See explanation for the month.
MRT ^(b) 1 (Gross)	3.0	1.1%	See explanation for the month.
MRT ^(b) 2 (Gross)	4.7	4.6%	See explanation for the month.
Urban Tax	(29.3)	-3.9%	See explanation for the month.
Payroll Mobility Tax	16.2	1.4%	See explanation for the month.
MTA Aid ^(c)	18.7	8.3%	MTA Aid YTD cash receipts were below budget due to timing of receipts.
New York City - 18b	(0.5)	-0.4%	The unfavorable YTD variance was primarily due to timing of receipt of payment.
Nassau County	(2.9)	-33.3%	The unfavorable YTD variance was primarily due to timing of receipt of payment.
Suffolk County - 18b	7.5	> 100%	See explanation for the month.
Westchester County - 18b	1.8	33.4%	See explanation for the month.
Putnam County - 18b	0.1	33.2%	See explanation for the month.
Dutchess County - 18b	(0.1)	-33.4%	The unfavorable YTD variance was primarily due to timing of receipt of payment.
Orange County	0.04	34.0%	The favorable YTD variance was primarily due to timing of receipt of payment.
Rockland County	0.01	29.1%	The favorable YTD variance was primarily due to timing of receipt of payment.
CDOT Subsidies	32.3	37.2%	See explanation for the month.
Station Maintenance	(26.7)	-28.2%	See explanation for the month.

(millions)

	<u>Current Month Stabilization Fund</u>			<u>Year to Date Stabilization Fund</u>		
	<u>Commuter</u>	<u>Transit</u>	<u>Total</u>	<u>Commuter</u>	<u>Transit</u>	<u>Total</u>
	<u>(General Fd)</u>	<u>(TA Stab)</u>		<u>(General Fd)</u>	<u>(TA Stab)</u>	
From Date:	11/01/16	11/01/16	11/01/16	01/01/16	01/01/16	01/01/16
To Date:	11/30/16	11/30/16	11/30/16	11/30/16	11/30/16	11/30/16
Opening Balance	\$151.966	\$88.891	\$240.857	\$53.412	\$110.216	\$163.628
RECEIPTS						
Interest Earnings	0.063	0.069	0.132	0.092	0.528	0.620
New York State						
State and regional mass transit taxes - MMTOA	72.166	149.215	221.381	385.774	797.651	1,183.425
MTTF New York State	7.339	41.589	48.928	85.808	486.248	572.057
Total Dedicated Taxes Received	79.505	190.804	270.309	471.582	1,283.899	1,755.482
Less DTF Debt Service	0.000	0.000	0.000	56.848	265.636	322.483
Net Dedicated Taxes for Operations	79.505	190.804	270.309	414.735	1,018.264	1,432.998
Payroll Mobility Tax	41.400	148.539	189.939	353.674	931.410	1,285.084
MTA Aid Trust Taxes	0.000	0.000	0.000	36.854	119.970	156.823
Operating Assistance - 18b	7.313	39.668	46.981	21.939	119.004	140.943
NYC School Fares	0.000	0.000	0.000	0.000	0.000	0.000
NYS School Fares	0.000	6.313	6.313	0.000	18.938	18.938
Additional Mass Transp Operating Assistance	0.000	n/a	0.000	0.000	n/a	0.000
Total - New York State	\$128.218	\$385.323	\$513.541	\$827.202	\$2,207.586	\$3,034.787
Local						
Dutchess County						
Operating Assistance - 18b	\$0.000	n/a	\$0.000	\$0.190	n/a	\$0.190
Station Maintenance	0.000	n/a	0.000	2.370	n/a	2.370
Nassau County						
Operating Assistance - 18b	0.000	n/a	0.000	5.792	n/a	5.792
Station Maintenance	0.000	n/a	0.000	28.761	n/a	28.761
New York City						
Operating Assistance - 18b	0.000	0.000	0.000	0.936	0.000	0.936
Urban - Real Property & Mortgage Recording Tax	n/a	47.962	47.962	n/a	767.045	767.045
Additional Assistance New York City	n/a	0.000	0.000	n/a	123.672	123.672
Station Maintenance	0.000	n/a	0.000	92.029	n/a	92.029
Orange County						
Operating Assistance - 18b	0.000	n/a	0.000	0.146	n/a	0.146
Station Maintenance	0.000	n/a	0.000	0.490	n/a	0.490
Putnam County						
Operating Assistance - 18b	0.000	n/a	0.000	0.380	n/a	0.380
Station Maintenance	0.000	n/a	0.000	0.927	n/a	0.927
Rockland County						
Operating Assistance - 18b	0.000	n/a	0.000	0.022	n/a	0.022
Station Maintenance	0.000	n/a	0.000	0.052	n/a	0.052
Suffolk County						
Operating Assistance - 18b	0.000	n/a	0.000	13.156	n/a	13.156
Station Maintenance	0.000	n/a	0.000	17.727	n/a	17.727
Westchester County						
Operating Assistance - 18b	0.000	n/a	0.000	7.342	n/a	7.342
Station Maintenance	0.000	n/a	0.000	19.877	n/a	19.877
Total - Local	\$0.000	\$47.962	\$47.962	\$190.198	\$890.717	\$1,080.915

(millions)

	<u>Current Month Stabilization Fund</u>			<u>Year to Date Stabilization Fund</u>		
	<u>Commuter</u>	<u>Transit</u>	<u>Total</u>	<u>Commuter</u>	<u>Transit</u>	<u>Total</u>
	<u>(General Fd)</u>	<u>(TA Stab)</u>		<u>(General Fd)</u>	<u>(TA Stab)</u>	
From Date:	11/01/16	11/01/16	11/01/16	01/01/16	01/01/16	01/01/16
To Date:	11/30/16	11/30/16	11/30/16	11/30/16	11/30/16	11/30/16
<u>MTA Bridges and Tunnels- Surplus Transfers</u>	37.571	28.611	66.182	393.577	284.405	677.982
Total Subsidy and Other Receipts	\$165.789	\$461.896	\$627.685	\$1,410.977	\$3,382.707	\$4,793.684
<u>MTA Sources for Interagency Loans</u>						
Retro Payment Reserve - Fund#1302	\$0.000	\$0.000	\$0.000	\$70.349	\$0.000	\$70.349
MTA Capital Program - Non-Resolution Funds	0.000	0.000	0.000	0.000	0.000	0.000
MRT-2 Corporate Account	0.000	0.000	0.000	0.000	0.000	0.000
2012 OPEB Loan	0.000	0.000	0.000	0.000	0.000	0.000
Total Loans	\$0.000	\$0.000	\$0.000	\$70.349	\$0.000	\$70.349
Total Receipts and Loans Received	\$165.852	\$461.965	\$627.817	\$1,481.418	\$3,383.235	\$4,864.654

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Continued on Next Page

(millions)

	<u>Current Month Stabilization Fund</u>			<u>Year to Date Stabilization Fund</u>		
	<u>Commuter</u>	<u>Transit</u>	<u>Total</u>	<u>Commuter</u>	<u>Transit</u>	<u>Total</u>
	<u>(General Fd)</u>	<u>(TA Stab)</u>		<u>(General Fd)</u>	<u>(TA Stab)</u>	
From Date:	11/01/16	11/01/16	11/01/16	01/01/16	01/01/16	01/01/16
To Date:	11/30/16	11/30/16	11/30/16	11/30/16	11/30/16	11/30/16
<u>Brought forward from prior page</u>						
Opening Balance	\$151.966	\$88.891	\$240.857	\$53.412	\$110.216	\$163.628
Total Receipts and Loans Received	165.852	461.965	627.817	1,481.418	3,383.235	4,864.654
Total Cash and Receipts Available	\$317.818	\$550.856	\$868.674	\$1,534.831	\$3,493.451	\$5,028.281
<u>DISBURSEMENTS</u>						
<u>Revenue Supported Debt Service</u>	17.427	27.233	44.659	493.383	792.722	1,286.104
<u>Agency Operations</u>						
MTA Long Island Railroad	40.482	0.000	40.482	514.330	0.000	514.330
MTA Metro-North Rail Road	41.188	0.000	41.188	305.229	0.000	305.229
MTA New York City Transit	0.000	309.939	309.939	0.000	2,477.656	2,477.656
MTA NYCT for SIRTOA	0.000	0.000	0.000	0.000	4.219	4.219
MTA Bond Admin Cost	0.000	0.000	0.000	3.168	5.170	8.338
MNR Repayment of 525 North Broadway loan	0.000	0.000	0.000	0.000	0.000	0.000
Forward Energy Contracts	0.000	0.000	0.000	0.000	0.000	0.000
Capital Security Account	0.000	0.000	0.000	0.000	0.000	0.000
Total Debt Service and Operations	\$99.097	\$337.171	\$436.268	\$1,316.110	\$3,279.766	\$4,595.876
<u>Repayment of Interagency Loans</u>						
Payback - Trans Non-bond - Fd#1028	0.000	0.000	0.000	0.000	0.000	0.000
Transfer to Fund 1030 (NYCTA Op Fund)	0.000	0.000	0.000	0.000	0.000	0.000
MRT-2 Corporate Account	0.000	0.000	0.000	0.000	0.000	0.000
2012 OPEB Loan	0.000	0.000	0.000	0.000	0.000	0.000
Total Loans Payback	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000
Total Disbursements	\$99.097	\$337.171	\$436.268	\$1,316.110	\$3,279.766	\$4,595.876
<u>STABILIZATION FUND BALANCE</u>	\$218.721	\$213.685	\$432.405	\$218.721	\$213.685	\$432.405
<u>Ending Loan Balances</u>						
B&T Necessary Reconstruction Reserve	0.000	0.000	0.000	0.000	0.000	0.000
MTA Capital Program - Non-Resolution Funds	0.000	0.000	0.000	0.000	0.000	0.000
MRT-2 Corporate Account	0.000	0.000	0.000	0.000	0.000	0.000
2012 OPEB Loan	0.000	0.000	0.000	0.000	0.000	0.000
	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000
<u>End of Month NYCT Operating Fund borrowing from MTA Invest Pool not included in Ending Loan Balances above</u>	n/a	-\$102.437	-\$102.437	n/a	-\$102.437	-\$102.437
<u>Total Loan Balances (including negative Operating and negative Stabilization Fund Balances)</u>				-\$218.721	-\$316.121	-\$534.842

**METROPOLITAN TRANSPORTATION AUTHORITY
JULY FINANCIAL PLAN - Mid-Year Forecast**

Debt Service

October 2016

(\$ in millions)

	Mid-Year Forecast	Actual	Variance	% Var	Explanation
Dedicated Tax Fund:					
NYC Transit	\$11.0	\$11.5	(\$0.5)		
Commuter Railroads	2.3	2.5	(0.2)		
Dedicated Tax Fund Subtotal	\$13.3	\$14.1	(\$0.7)	-5.5%	Timing of debt service deposits.
MTA Transportation Revenue:					
NYC Transit	\$78.9	\$104.6	(\$25.7)		
Commuter Railroads	50.4	66.9	(16.5)		
MTA Bus	2.0	3.3	(1.2)		
SIRTOA	0.1	0.1	0.0		
MTA Transportation Revenue Subtotal	\$131.5	\$174.9	(\$43.4)	-33.0%	Timing of debt service deposits as partial prefunding of November 2016 debt service.
MTA Transportation Revenue BANs:					
NYC Transit	\$0.0	\$0.0	\$0.0		
Commuter Railroads	0.0	0.0	0.0		
MTA Bus	0.0	0.0	0.0		
MTA Transp Revenue BANs Subtotal	\$0.0	\$0.0	\$0.0	0.0%	
2 Broadway COPs:					
NYC Transit	\$1.6	\$2.3	(\$0.8)		
Bridges & Tunnels	0.2	0.3	(0.1)		
MTA HQ	0.2	0.3	(0.1)		
2 Broadway COPs Subtotal	\$2.0	\$3.0	(\$1.0)	-50.9%	
TBTA General Resolution (2):					
NYC Transit	\$14.8	\$14.2	\$0.6		
Commuter Railroads	6.9	6.7	0.3		
Bridges & Tunnels	23.0	20.0	3.0		
TBTA General Resolution Subtotal	\$44.7	\$40.9	\$3.8	8.5%	Lower than budgeted variable rates.
TBTA Subordinate (2):					
NYC Transit	\$6.1	\$5.6	\$0.4		
Commuter Railroads	2.7	2.5	0.2		
Bridges & Tunnels	2.4	2.2	0.2		
TBTA Subordinate Subtotal	\$11.2	\$10.3	\$0.8	7.2%	Lower than budgeted variable rates.
Total Debt Service	\$202.7	\$243.2	(\$40.5)	-20.0%	
Debt Service by Agency:					
NYC Transit	\$112.4	\$138.3	(\$26.0)		
Commuter Railroads	62.3	78.6	(16.3)		
MTA Bus	2.0	22.6	(20.6)		
SIRTOA	0.1	3.3	(3.2)		
Bridges & Tunnels	25.6	0.1	25.6		
MTAHQ	0.2	0.3	(0.1)		
Total Debt Service	\$202.7	\$243.2	(\$40.5)	-20.0%	

Notes:

(1) Forecasted debt service is calculated based upon projected monthly deposits from available pledged revenues into debt service accounts. Actual payments to bondholders are made from the debt service accounts when due as required for each series of bonds and do not conform to this schedule.

(2) Generally, the calendarization of monthly debt service deposits is calculated by dividing projected annual debt service by 12. Month to month variations ("timing differences") on the existing debt portfolio can occur based upon, among other things, (a) for all bonds, the date when income from the securities in which the debt service accounts are invested becomes available varies, (b) for variable rate financings, differences between (i) the budgeted interest rate and the actual interest rate, (ii) projected interest payment dates to bondholders and actual interest payment dates to bondholders, and (iii) projected monthly funding dates for accrued debt service and actual funding dates, (c) for transactions with swaps, the difference between when MTA/TBTA funds debt service and the receipt of the corresponding swap payment by the counterparty, and difference between rates received and rates paid and (d) for commercial paper, the interest payment date is the date of the maturity of the commercial paper and the dealers set the term of the commercial paper from 1 to 270 days, which is not foreseeable at the time the annual debt service budgets are prepared.

(3) Debt service is allocated among Transit, Commuter, MTA Bus, and TBTA categories based on actual spending of bond proceeds for approved capital projects. Allocation of 2 Broadway COPs is based on occupancy.

Totals may not add due to rounding.

METROPOLITAN TRANSPORTATION AUTHORITY
JULY FINANCIAL PLAN - Mid-Year Forecast

Debt Service

October 2016 Year-to-Date

(\$ in millions)

	Mid-Year Forecast	Actual	Variance	% Var	Explanation
Dedicated Tax Fund:					
NYC Transit	\$255.4	\$265.7	(\$10.3)		
Commuter Railroads	53.5	56.7	(3.2)		
Dedicated Tax Fund Subtotal	\$308.9	\$322.5	(\$13.5)	-4.4%	Timing of debt service deposits.
MTA Transportation Revenue:					
NYC Transit	\$735.6	\$749.4	(\$13.8)		
Commuter Railroads	466.8	475.9	(9.1)		
MTA Bus	21.3	23.6	(2.2)		
SIRTOA	0.7	0.6	0.1		
MTA Transportation Revenue Subtotal	\$1,224.5	\$1,249.6	(\$25.0)	-2.0%	Same as monthly variance explanation.
MTA Transportation Revenue BANs:					
NYC Transit	\$5.6	\$0.0	\$5.6		
Commuter Railroads	5.9	0.0	5.9		
MTA Bus	0.0	0.0	0.0		
MTA Transp Revenue BANs Subtotal	\$11.5	\$0.0	\$11.5	100.0%	Included in Transportation Revenue above.
2 Broadway COPs:					
NYC Transit	\$15.5	\$16.0	(\$0.6)		
Bridges & Tunnels	2.2	2.2	(0.0)		
MTA HQ	2.1	2.2	(0.1)		
2 Broadway COPs Subtotal	\$19.7	\$20.6	(\$0.7)	-3.6%	
TBTA General Resolution (2):					
NYC Transit	\$144.9	\$143.5	\$1.4		
Commuter Railroads	68.0	67.5	0.6		
Bridges & Tunnels	215.1	202.2	12.9		
TBTA General Resolution Subtotal	\$428.0	\$413.1	\$14.8	3.5%	
TBTA Subordinate (2):					
NYC Transit	\$59.7	\$58.6	\$1.0		
Commuter Railroads	26.2	25.8	0.4		
Bridges & Tunnels	23.6	23.1	0.5		
TBTA Subordinate Subtotal	\$109.5	\$107.5	\$1.9	1.7%	
Total Debt Service	\$2,102.0	\$2,113.2	(\$11.2)	-0.5%	
Debt Service by Agency:					
NYC Transit	\$1,216.6	\$1,233.3	(\$16.8)		
Commuter Railroads	620.4	625.9	(5.5)		
MTA Bus	21.3	42.9	(21.6)		
SIRTOA	0.7	3.8	(3.1)		
Bridges & Tunnels	240.8	205.2	35.7		
MTAHQ	2.1	2.2	(0.1)		
Total Debt Service	\$2,102.0	\$2,113.2	(\$11.3)	-0.5%	

Notes:

(1) Forecasted debt service is calculated based upon projected monthly deposits from available pledged revenues into debt service accounts. Actual payments to bondholders are made from the debt service accounts when due as required for each series of bonds and do not conform to this schedule.

(2) Generally, the calendarization of monthly debt service deposits is calculated by dividing projected annual debt service by 12. Month to month variations ("timing differences") on the existing debt portfolio can occur based upon, among other things, (a) for all bonds, the date when income from the securities in which the debt service accounts are invested becomes available varies, (b) for variable rate financings, differences between (i) the budgeted interest rate and the actual interest rate, (ii) projected interest payment dates to bondholders and actual interest payment dates to bondholders, and (iii) projected monthly funding dates for accrued debt service and actual funding dates, (c) for transactions with swaps, the difference between when MTA/TBTA funds debt service and the receipt of the corresponding swap payment by the counterparty, and difference between rates received and rates paid and (d) for commercial paper, the interest payment date is the date of the maturity of the commercial paper and the dealers set the term of the commercial paper from 1 to 270 days, which is not foreseeable at the time the annual debt service budgets are prepared.

(3) Debt service is allocated among Transit, Commuter, MTA Bus, and TBTA categories based on actual spending of bond proceeds for approved capital projects. Allocation of 2 Broadway COPs is based on occupancy.

Totals may not add due to rounding.

METROPOLITAN TRANSPORTATION AUTHORITY
July Financial Plan - 2016 Mid-Year Forecast
Total Positions by Function and Agency
October 2016

Function/Agency	Mid-Year Forecast	Actual	Variance Favorable/ (Unfavorable)
Administration	4,909	4,344	565
NYC Transit	1,486	1,450	36
Long Island Rail Road	512	465	47
Metro-North Railroad	553	473	80
Bridges & Tunnels	85	82	3
Headquarters	2,075	1,728	347
Staten Island Railway	29	21	8
Capital Construction Company	15	14	1
Bus Company	154	111	43
Operations	31,196	30,703	493
NYC Transit	23,391	23,152	239
Long Island Rail Road	2,489	2,434	56
Metro-North Railroad	1,966	1,954	12
Bridges & Tunnels	759	526	233
Headquarters	-	-	-
Staten Island Railway	107	113	(6)
Capital Construction Company	-	-	-
Bus Company	2,484	2,525	(41)
Maintenance	31,434	30,706	728
NYC Transit	21,749	21,254	495
Long Island Rail Road	4,046	4,037	9
Metro-North Railroad	3,945	3,783	162
Bridges & Tunnels	378	374	4
Headquarters	-	-	-
Staten Island Railway	168	155	13
Capital Construction Company	-	-	-
Bus Company	1,148	1,103	45
Engineering/Capital	2,110	2,023	87
NYC Transit	1,358	1,384	(26)
Long Island Rail Road	203	173	30
Metro-North Railroad	119	107	12
Bridges & Tunnels	253	209	44
Headquarters	-	-	-
Staten Island Railway	15	8	7
Capital Construction Company	125	117	8
Bus Company	37	25	12
Public Safety	1,807	1,697	110
NYC Transit	662	651	11
Long Island Rail Road	-	-	-
Metro-North Railroad	-	-	-
Bridges & Tunnels	275	271	4
Headquarters	848	757	91
Staten Island Railway	-	-	-
Capital Construction Company	-	-	-
Bus Company	22	18	4
Total Positions	71,456	69,473	1,983

METROPOLITAN TRANSPORTATION AUTHORITY
July Financial Plan - 2016 Mid-Year Forecast
Total Positions by Function and Agency
October 2016

Category	Mid-Year Forecast	Actual	Variance Favorable/ (Unfavorable)
Total Positions	71,456	69,473	1,983
NYC Transit	48,646	47,891	755
Long Island Rail Road	7,250	7,109	142
Metro-North Railroad	6,583	6,317	266
Bridges & Tunnels	1,750	1,462	288
Headquarters	2,923	2,485	438
Staten Island Railway	319	297	22
Capital Construction Company	140	131	9
Bus Company	3,845	3,782	63
Non-reimbursable	63,893	61,661	2,231
NYC Transit	43,474	41,974	1,500
Long Island Rail Road	6,032	6,069	(37)
Metro-North Railroad	5,824	5,830	(6)
Bridges & Tunnels	1,663	1,375	288
Headquarters	2,791	2,378	413
Staten Island Railway	304	289	15
Capital Construction Company	-	-	-
Bus Company	3,805	3,747	58
Reimbursable	7,563	7,812	(249)
NYC Transit	5,172	5,917	(745)
Long Island Rail Road	1,218	1,040	178
Metro-North Railroad	759	487	272
Bridges & Tunnels	87	87	-
Headquarters	132	107	25
Staten Island Railway	15	8	7
Capital Construction Company	140	131	9
Bus Company	40	35	5
Total Full Time	71,227	69,202	2,025
NYC Transit	48,433	47,635	798
Long Island Rail Road	7,250	7,109	142
Metro-North Railroad	6,582	6,316	266
Bridges & Tunnels	1,750	1,462	288
Headquarters	2,923	2,485	438
Staten Island Railway	319	297	22
Capital Construction Company	140	131	9
Bus Company	3,830	3,768	62
Total Full-Time Equivalents	229	271	(42)
NYC Transit	213	256	(43)
Long Island Rail Road	-	-	-
Metro-North Railroad	1	1	-
Bridges & Tunnels	-	-	-
Headquarters	-	-	-
Staten Island Railway	-	-	-
Capital Construction Company	-	-	-
Bus Company	15	14	1

Note: Totals may differ due to rounding

METROPOLITAN TRANSPORTATION AUTHORITY
July Financial Plan - 2016 Mid-Year Forecast
Total Positions by Function and Occupational Group
October 2016

FUNCTION/OCCUPATIONAL GROUP	Mid-Year Forecast	Actual	Variance Favorable/ (Unfavorable)
Administration	4,909	4,344	565
Managers/Supervisors	1,533	1,342	191
Professional, Technical, Clerical	3,226	2,874	352
Operational Hourlies	151	128	23
Operations	31,196	30,703	493
Managers/Supervisors	3,810	3,711	99
Professional, Technical, Clerical	885	807	78
Operational Hourlies	26,501	26,186	315
Maintenance	31,434	30,706	728
Managers/Supervisors	5,581	5,430	151
Professional, Technical, Clerical	1,880	1,846	34
Operational Hourlies	23,972	23,430	542
Engineering/Capital	2,110	2,023	87
Managers/Supervisors	607	548	59
Professional, Technical, Clerical	1,491	1,470	21
Operational Hourlies	12	5	7
Public Safety	1,807	1,697	110
Managers/Supervisors	516	497	19
Professional, Technical, Clerical	154	137	17
Operational Hourlies	1,137	1,063	74
Total Positions	71,456	69,473	1,983
Managers/Supervisors	12,047	11,528	519
Professional, Technical, Clerical	7,637	7,134	503
Operational Hourlies	51,773	50,812	961

METROPOLITAN TRANSPORTATION AUTHORITY
FAREBOX RECOVERY AND FAREBOX OPERATING RATIOS
2016 MID-YEAR FORECAST AND ACTUALS
OCTOBER 2016

FAREBOX RECOVERY RATIOS		
	2016 <u>Mid-Year Forecast</u>	2016 <u>YTD Actual</u>
New York City Transit	38.2%	38.7%
Staten Island Railway	9.2%	10.8%
Long Island Rail Road	29.6%	33.4%
Metro-North Railroad	42.6%	42.8%
Bus Company	<u>25.3%</u>	<u>26.9%</u>
MTA Agency Average	36.6%	37.7%

FAREBOX OPERATING RATIOS		
	2016 <u>Mid-Year Forecast</u>	2016 <u>YTD Actual</u>
New York City Transit	60.8%	61.1%
Staten Island Railway	12.8%	14.3%
Long Island Rail Road	47.4%	52.5%
Metro-North Railroad	61.3%	61.8%
Bus Company	<u>33.4%</u>	<u>33.9%</u>
MTA Agency Average	57.0%	58.1%

Farebox recovery ratio has a long-term focus. It includes costs that are not funded in the current year, except in an accounting-ledger sense, but are, in effect, passed on to future years. Those costs include depreciation and interest on long-term debt. Approximately 20% (and sometimes more) of MTA costs are not recovered in the current year from farebox revenues, other operating revenues or subsidies. That is why MTA operating statements generally show deficits. In addition, the recovery ratio allocates centralized MTA services to the Agencies, such as Security, the costs of the Inspector General, Civil Rights, Audit, Risk Management, Legal and Shared Services.

Farebox operating ratio focuses on Agency operating financial performance. It reflects the way MTA meets its statutory and bond-covenant budget-balancing requirements, and it excludes certain cost that are not subject to Agency control, but are provided centrally by MTA.

In the agenda materials for the Meeting of the Metro-North and Long Island Committees, the calculations of the farebox operating and recovery ratios for the LIRR and MNR use a revised methodology to put the railroads on a more comparable basis. Those statistics, which are included in the respective financial and ridership reports of both Agencies, differ from the statistics presented in this table.



Metropolitan Transportation Authority

State of New York

New York City Transit
Long Island Rail Road
Metro-North Railroad
Bridges and Tunnels
Bus Company

Report on Revenue Passengers and Vehicles Ridership Data Thru October, 2016

NOTE: Ridership data are preliminary and subject to revision as well as adjustments warranted by annual audit review.

**Prepared by:
MTA Division of Management & Budget**

Friday, December 02, 2016

Metropolitan Transportation Authority

October

Revenue Passengers	2014	2015	Percent Change	2016	Percent Change
MTA New York City Transit	222,191,504	218,903,424	-1.48%	205,135,692	-6.29%
MTA New York City Subway	160,120,773	159,987,486	-0.08%	150,605,028	-5.86%
MTA New York City Bus	62,070,731	58,915,938	-5.08%	54,530,664	-7.44%
MTA Staten Island Railway	430,201	435,865	1.32%	400,241	-8.17%
MTA Long Island Rail Road	7,663,987	7,686,741	0.30%	7,553,444	-1.73%
MTA Metro-North Railroad	7,653,001	7,667,660	0.19%	7,444,035	-2.92%
<i>East of Hudson</i>	7,499,635	7,513,131	0.18%	7,321,189	-2.55%
Harlem Line	2,465,785	2,472,035	0.25%	2,403,597	-2.77%
Hudson Line	1,465,645	1,468,000	0.16%	1,453,574	-0.98%
New Haven Line	3,568,205	3,573,096	0.14%	3,464,018	-3.05%
<i>West of Hudson</i>	153,366	154,529	0.76%	122,846	-20.50%
Port Jervis Line	93,068	93,069	0.00%	76,963	-17.31%
Pascack Valley Line	60,298	61,460	1.93%	45,883	-25.34%
MTA Bus Company	11,810,454	11,333,752	-4.04%	10,831,627	-4.43%
MTA Bridges & Tunnels	25,189,827	26,221,062	4.09%	26,025,189	-0.75%
Total All Agencies	249,749,147	246,027,442	-1.49%	231,365,038	-5.96%
(Excludes Bridges & Tunnels)					
Weekdays:	22	21		20	
Holidays:	1	1		1	
Weekend Days:	8	9		10	
Days	31	31		31	

Friday, December 02, 2016

Metropolitan Transportation Authority

October

Revenue Passengers Year to Date	2014	2015	Percent Change	2016	Percent Change
MTA New York City Transit	2,019,364,823	2,010,522,368	-0.44%	1,997,400,671	-0.65%
MTA New York City Subway	1,459,927,702	1,467,195,355	0.50%	1,462,237,853	-0.34%
MTA New York City Bus	559,437,121	543,327,013	-2.88%	535,162,818	-1.50%
MTA Staten Island Railway	3,646,297	3,728,299	2.25%	3,760,623	0.87%
MTA Long Island Rail Road	71,592,458	72,858,849	1.77%	74,282,585	1.95%
MTA Metro-North Railroad	70,471,243	71,387,729	1.30%	71,841,355	0.64%
<i>East of Hudson</i>	69,063,632	69,926,447	1.25%	70,423,806	0.71%
Harlem Line	22,590,529	22,821,772	1.02%	23,019,973	0.87%
Hudson Line	13,545,240	13,668,546	0.91%	13,793,231	0.91%
New Haven Line	32,927,863	33,436,129	1.54%	33,610,602	0.52%
<i>West of Hudson</i>	1,407,611	1,461,282	3.81%	1,417,549	-2.99%
Port Jervis Line	852,102	870,643	2.18%	844,330	-3.02%
Pascack Valley Line	555,509	590,639	6.32%	573,219	-2.95%
MTA Bus Company	104,991,437	104,550,373	-0.42%	105,099,494	0.53%
MTA Bridges & Tunnels	238,817,569	247,768,684	3.75%	257,000,927	3.73%
Total All Agencies	2,270,066,258	2,263,047,618	-0.31%	2,252,384,728	-0.47%
(Excludes Bridges & Tunnels)					
Weekdays:	209	210		209	
Holidays:	6	7		7	
Weekend Days:	89	87		89	
Days	304	304		305	

Friday, December 02, 2016

Metropolitan Transportation Authority

October

Revenue Passengers

12 Month Averages	2014	2015	Percent Change	2016	Percent Change
MTA New York City Transit	200,976,908	200,791,361	-0.09%	200,010,459	-0.39%
MTA New York City Subway	145,328,497	146,546,273	0.84%	146,467,326	-0.05%
MTA New York City Bus	55,648,412	54,245,089	-2.52%	53,543,132	-1.29%
MTA Staten Island Railway	362,110	370,802	2.40%	377,855	1.90%
MTA Long Island Rail Road	7,121,865	7,260,622	1.95%	7,422,536	2.23%
MTA Metro-North Railroad	7,017,863	7,131,301	1.62%	7,205,982	1.05%
<i>East of Hudson</i>	6,878,995	6,986,494	1.56%	7,064,147	1.11%
Harlem Line	2,254,562	2,279,891	1.12%	2,308,507	1.26%
Hudson Line	1,340,144	1,363,322	1.73%	1,379,110	1.16%
New Haven Line	3,284,288	3,343,282	1.80%	3,376,530	0.99%
<i>West of Hudson</i>	138,869	144,807	4.28%	141,835	-2.05%
Port Jervis Line	84,226	86,406	2.59%	84,422	-2.30%
Pascack Valley Line	54,643	58,401	6.88%	57,413	-1.69%
MTA Bus Company	10,424,203	10,428,348	0.04%	10,495,724	0.65%
MTA Bridges & Tunnels	23,754,487	24,609,352	3.60%	25,598,308	4.02%
Total All Agencies	225,902,949	225,982,434	0.04%	225,512,557	-0.21%
(Excludes Bridges & Tunnels)					
Weekdays:	22	21		20	
Holidays:	1	1		1	
Weekend Days:	8	9		10	
Days	31	31		31	

Friday, December 02, 2016

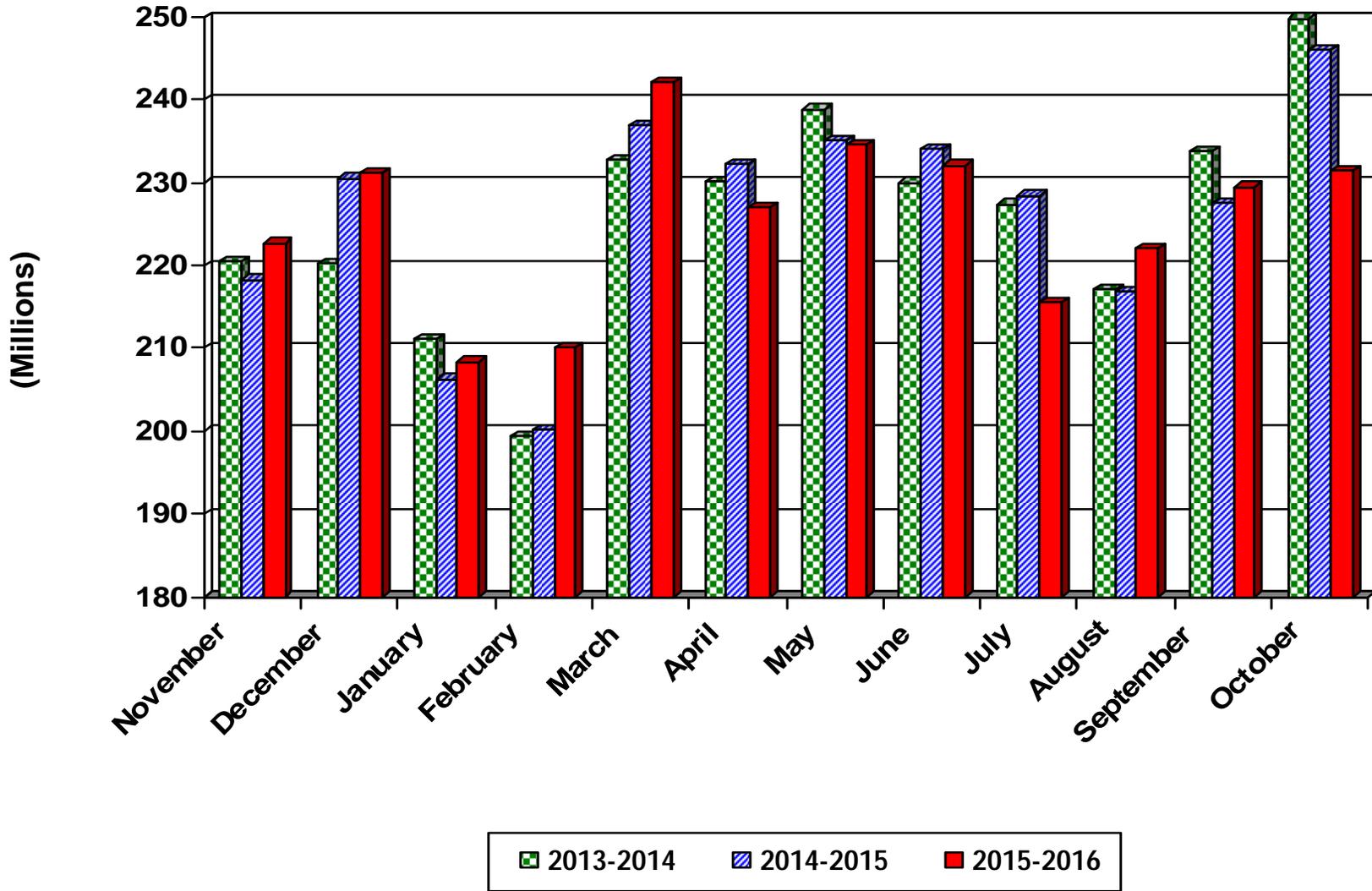
Metropolitan Transportation Authority

October

Average Weekday Passengers	2014	2015	Percent Change	2016	Percent Change
MTA New York City Transit	8,177,035	8,180,299	0.04%	7,830,632	-4.27%
MTA New York City Subway	5,893,267	5,975,276	1.39%	5,758,245	-3.63%
MTA New York City Bus	2,283,768	2,205,022	-3.45%	2,072,387	-6.02%
MTA Staten Island Railway	17,290	18,135	4.89%	17,329	-4.44%
MTA Long Island Rail Road	298,040	309,872	3.97%	315,279	1.74%
MTA Metro-North Railroad	296,293	299,864	1.21%	287,135	-4.24%
<i>East of Hudson</i>	289,611	292,836	1.11%	281,296	-3.94%
Harlem Line	95,720	97,017	1.35%	92,772	-4.38%
Hudson Line	56,450	56,955	0.89%	55,229	-3.03%
New Haven Line	137,441	138,865	1.04%	133,295	-4.01%
<i>West of Hudson</i>	6,682	7,028	5.18%	5,839	-16.92%
Port Jervis Line	4,056	4,233	4.36%	3,657	-13.61%
Pascack Valley Line	2,626	2,795	6.44%	2,182	-21.93%
MTA Bus Company	442,183	430,760	-2.58%	418,094	-2.94%
MTA Bridges & Tunnels	824,083	862,734	4.69%	867,119	0.51%
Total All Agencies	9,230,840	9,238,929	0.09%	8,868,469	-4.01%
(Excludes Bridges & Tunnels)					
Weekdays:	22	21		20	
Holidays:	1	1		1	
Weekend Days:	8	9		10	
Days	31	31		31	

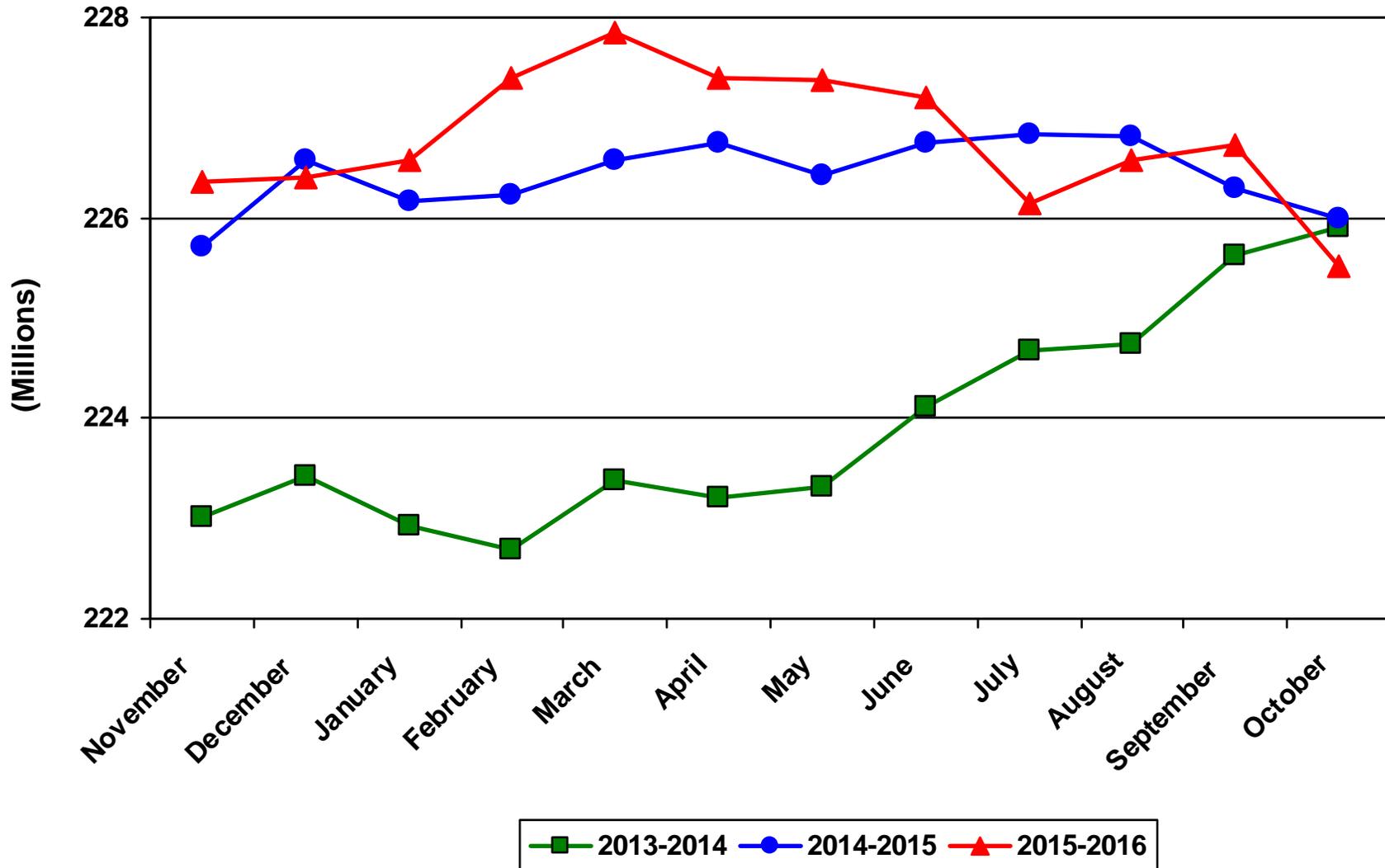
Friday, December 02, 2016

Metropolitan Transportation Authority Revenue Passengers

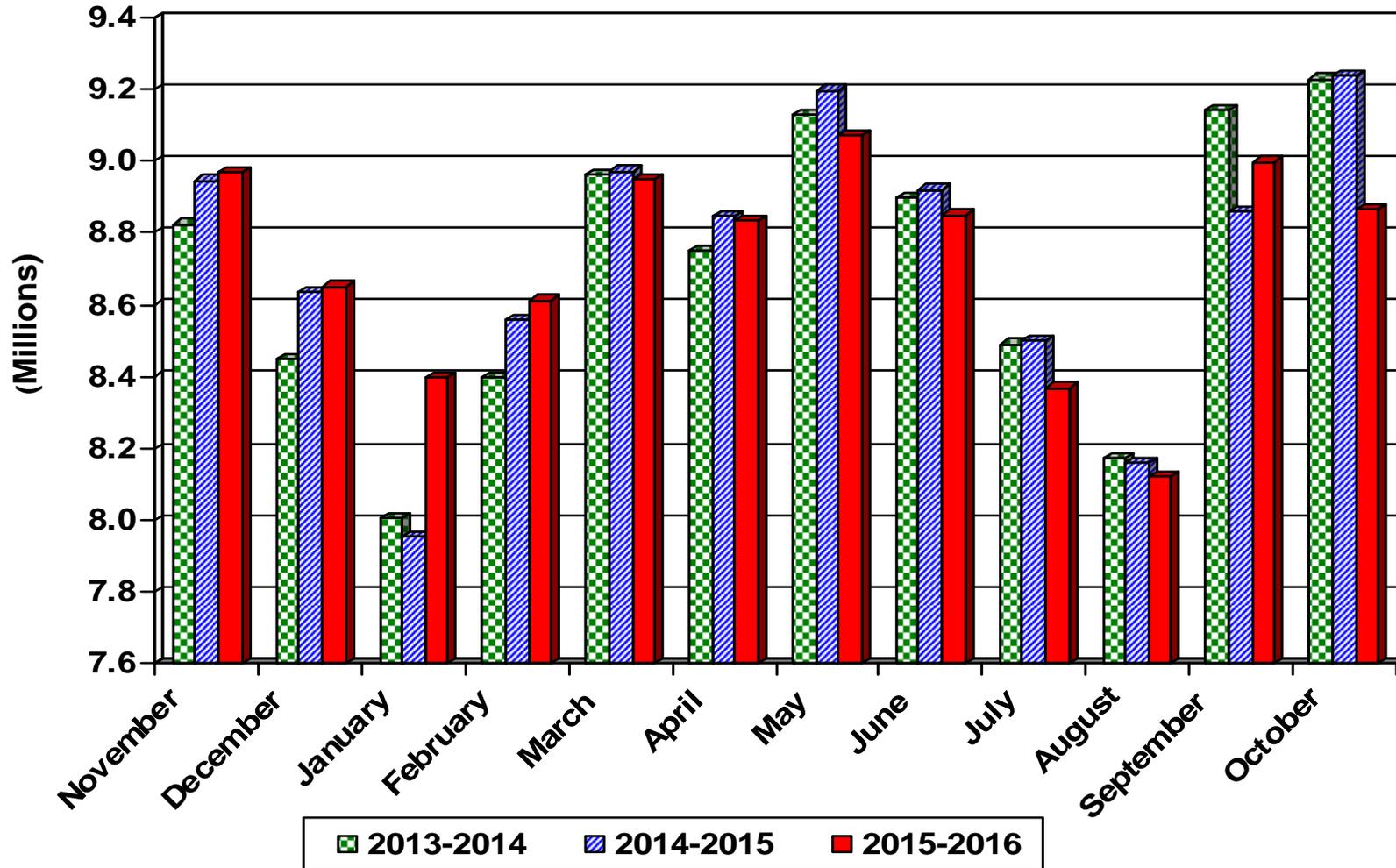


Metropolitan Transportation Authority Revenue Passengers

12 Month Averages



Metropolitan Transportation Authority Average Weekday Passengers



Metropolitan Transportation Authority

Revenue Passengers

Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	220,519,382	218,236,110	-1.04%	222,702,079	2.05%
December	220,249,751	230,505,478	4.66%	231,063,876	0.24%
January	211,066,938	206,268,455	-2.27%	208,365,217	1.02%
February	199,451,154	200,136,659	0.34%	210,062,462	4.96%
March	232,619,587	236,828,923	1.81%	242,057,167	2.21%
April	230,127,706	232,095,483	0.86%	226,900,984	-2.24%
May	238,847,033	235,019,006	-1.60%	234,618,531	-0.17%
June	229,971,756	233,980,472	1.74%	232,054,396	-0.82%
July	227,358,980	228,409,086	0.46%	215,495,486	-5.65%
August	217,065,083	216,756,306	-0.14%	221,983,217	2.41%
September	233,808,873	227,525,786	-2.69%	229,482,228	0.86%
October	249,749,147	246,027,442	-1.49%	231,365,038	-5.96%
12 Month Ave	225,902,949	225,982,434	0.04%	225,512,557	-0.21%
Year-to-Date	2,270,066,258	2,263,047,618	-0.31%	2,252,384,728	-0.47%

12 Month Averages

Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	223,004,123	225,712,677	1.21%	226,354,598	0.28%
December	223,421,626	226,567,320	1.41%	226,401,131	-0.07%
January	222,922,783	226,167,447	1.46%	226,575,861	0.18%
February	222,682,304	226,224,572	1.59%	227,403,011	0.52%
March	223,381,034	226,575,350	1.43%	227,838,698	0.56%
April	223,200,258	226,739,332	1.59%	227,405,823	0.29%
May	223,325,180	226,420,329	1.39%	227,372,451	0.42%
June	224,115,268	226,754,389	1.18%	227,211,944	0.20%
July	224,681,665	226,841,898	0.96%	226,135,811	-0.31%
August	224,739,365	226,816,166	0.92%	226,571,387	-0.11%
September	225,629,649	226,292,576	0.29%	226,734,424	0.20%
October	225,902,949	225,982,434	0.04%	225,512,557	-0.21%

Average Weekday Passengers

Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	8,824,741	8,947,640	1.39%	8,970,657	0.26%
December	8,450,370	8,635,225	2.19%	8,651,329	0.19%
January	8,004,540	7,953,770	-0.63%	8,399,482	5.60%
February	8,398,198	8,556,045	1.88%	8,612,880	0.66%
March	8,961,785	8,972,642	0.12%	8,952,371	-0.23%
April	8,749,537	8,848,760	1.13%	8,836,622	-0.14%
May	9,129,881	9,198,768	0.75%	9,075,041	-1.35%
June	8,900,992	8,920,884	0.22%	8,849,996	-0.79%
July	8,489,922	8,502,405	0.15%	8,368,715	-1.57%
August	8,172,203	8,161,363	-0.13%	8,120,488	-0.50%
September	9,141,834	8,859,276	-3.09%	8,998,153	1.57%
October	9,230,840	9,238,929	0.09%	8,868,469	-4.01%

MTA New York City Transit

Revenue Passengers					
Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	196,664,216	194,418,829	-1.14%	197,975,727	1.83%
December	195,693,862	204,555,139	4.53%	204,749,107	0.09%
January	188,182,009	183,767,097	-2.35%	185,585,948	0.99%
February	178,057,023	178,598,334	0.30%	187,018,360	4.71%
March	207,634,529	210,843,049	1.55%	214,962,054	1.95%
April	204,849,373	206,370,025	0.74%	201,573,103	-2.32%
May	212,847,982	209,230,157	-1.70%	208,519,995	-0.34%
June	204,157,340	207,528,922	1.65%	205,225,083	-1.11%
July	201,455,345	202,067,215	0.30%	190,299,489	-5.82%
August	192,219,890	191,546,098	-0.35%	195,759,687	2.20%
September	207,769,829	201,668,047	-2.94%	203,321,259	0.82%
October	222,191,504	218,903,424	-1.48%	205,135,692	-6.29%
12 Month Ave	200,976,908	200,791,361	-0.09%	200,010,459	-0.39%
Year-to-Date	2,019,364,823	2,010,522,368	-0.44%	1,997,400,671	-0.65%
12 Month Averages					
Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	198,382,087	200,789,793	1.21%	201,087,770	0.15%
December	198,760,429	201,528,233	1.39%	201,103,934	-0.21%
January	198,352,722	201,160,323	1.42%	201,255,504	0.05%
February	198,161,191	201,205,432	1.54%	201,957,173	0.37%
March	198,837,151	201,472,809	1.33%	202,300,424	0.41%
April	198,673,101	201,599,530	1.47%	201,900,680	0.15%
May	198,793,913	201,298,045	1.26%	201,841,500	0.27%
June	199,469,676	201,579,010	1.06%	201,649,514	0.03%
July	199,964,298	201,629,999	0.83%	200,668,870	-0.48%
August	200,004,189	201,573,850	0.78%	201,020,002	-0.27%
September	200,762,390	201,065,368	0.15%	201,157,770	0.05%
October	200,976,908	200,791,361	-0.09%	200,010,459	-0.39%
Average Weekday Passengers					
Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	7,802,540	7,892,538	1.15%	7,914,613	0.28%
December	7,464,105	7,623,337	2.13%	7,630,448	0.09%
January	7,082,303	7,023,925	-0.82%	7,427,622	5.75%
February	7,448,314	7,594,202	1.96%	7,637,655	0.57%
March	7,952,858	7,952,993	0.00%	7,928,251	-0.31%
April	7,752,530	7,836,222	1.08%	7,819,074	-0.22%
May	8,088,167	8,139,590	0.64%	8,035,683	-1.28%
June	7,860,640	7,883,012	0.28%	7,806,867	-0.97%
July	7,486,780	7,490,656	0.05%	7,354,909	-1.81%
August	7,193,127	7,177,366	-0.22%	7,146,334	-0.43%
September	8,081,709	7,814,868	-3.30%	7,945,242	1.67%
October	8,177,035	8,180,299	0.04%	7,830,632	-4.27%

MTA New York City Subway

Revenue Passengers					
Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	141,447,579	141,226,971	-0.16%	144,542,523	2.35%
December	142,566,679	150,132,948	5.31%	150,827,541	0.46%
January	137,147,363	133,814,801	-2.43%	136,413,951	1.94%
February	129,802,427	130,776,608	0.75%	136,690,795	4.52%
March	148,394,847	153,093,778	3.17%	156,297,328	2.09%
April	147,907,313	150,372,555	1.67%	147,291,655	-2.05%
May	152,868,196	151,579,782	-0.84%	151,910,204	0.22%
June	147,939,131	152,192,133	2.87%	151,007,041	-0.78%
July	146,505,849	148,437,225	1.32%	139,851,426	-5.78%
August	139,868,371	140,064,643	0.14%	143,703,034	2.60%
September	149,373,432	146,876,344	-1.67%	148,467,391	1.08%
October	160,120,773	159,987,486	-0.08%	150,605,028	-5.86%
12 Month Ave	145,328,497	146,546,273	0.84%	146,467,326	-0.05%
Year-to-Date	1,459,927,702	1,467,195,355	0.50%	1,462,237,853	-0.34%
12 Month Averages					
Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	141,871,752	145,310,113	2.42%	146,822,569	1.04%
December	142,296,309	145,940,635	2.56%	146,880,452	0.64%
January	142,301,998	145,662,922	2.36%	147,097,047	0.98%
February	142,460,499	145,744,103	2.30%	147,589,896	1.27%
March	142,966,236	146,135,681	2.22%	147,856,859	1.18%
April	143,049,113	146,341,118	2.30%	147,600,117	0.86%
May	143,225,179	146,233,750	2.10%	147,627,652	0.95%
June	143,784,476	146,588,167	1.95%	147,528,895	0.64%
July	144,258,080	146,749,115	1.73%	146,813,411	0.04%
August	144,367,039	146,765,471	1.66%	147,116,611	0.24%
September	145,021,209	146,557,380	1.06%	147,249,198	0.47%
October	145,328,497	146,546,273	0.84%	146,467,326	-0.05%
Average Weekday Passengers					
Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	5,608,862	5,734,440	2.24%	5,781,526	0.82%
December	5,420,212	5,584,168	3.02%	5,616,142	0.57%
January	5,159,344	5,112,634	-0.91%	5,450,158	6.60%
February	5,442,073	5,568,552	2.32%	5,597,172	0.51%
March	5,691,221	5,779,365	1.55%	5,771,631	-0.13%
April	5,607,703	5,723,687	2.07%	5,728,003	0.08%
May	5,815,676	5,909,329	1.61%	5,868,961	-0.68%
June	5,700,985	5,790,176	1.56%	5,763,243	-0.47%
July	5,466,523	5,537,445	1.30%	5,445,341	-1.66%
August	5,260,029	5,291,858	0.61%	5,276,450	-0.29%
September	5,812,513	5,707,385	-1.81%	5,816,860	1.92%
October	5,893,267	5,975,276	1.39%	5,758,245	-3.63%

MTA New York City Bus

Revenue Passengers					
Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	55,216,637	53,191,858	-3.67%	53,433,204	0.45%
December	53,127,183	54,422,191	2.44%	53,921,566	-0.92%
January	51,034,646	49,952,296	-2.12%	49,171,997	-1.56%
February	48,254,596	47,821,726	-0.90%	50,327,565	5.24%
March	59,239,682	57,749,271	-2.52%	58,664,726	1.59%
April	56,942,060	55,997,469	-1.66%	54,281,448	-3.06%
May	59,979,786	57,650,375	-3.88%	56,609,791	-1.80%
June	56,218,209	55,336,789	-1.57%	54,218,042	-2.02%
July	54,949,495	53,629,990	-2.40%	50,448,063	-5.93%
August	52,351,519	51,481,455	-1.66%	52,056,653	1.12%
September	58,396,397	54,791,703	-6.17%	54,853,868	0.11%
October	62,070,731	58,915,938	-5.08%	54,530,664	-7.44%
12 Month Ave	55,648,412	54,245,089	-2.52%	53,543,132	-1.29%
Year-to-Date	559,437,121	543,327,013	-2.88%	535,162,818	-1.50%
12 Month Averages					
Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	56,510,334	55,479,680	-1.82%	54,265,201	-2.19%
December	56,464,119	55,587,597	-1.55%	54,223,482	-2.45%
January	56,050,724	55,497,402	-0.99%	54,158,457	-2.41%
February	55,700,693	55,461,329	-0.43%	54,367,277	-1.97%
March	55,870,915	55,337,128	-0.96%	54,443,565	-1.61%
April	55,623,988	55,258,412	-0.66%	54,300,563	-1.73%
May	55,568,734	55,064,295	-0.91%	54,213,848	-1.54%
June	55,685,200	54,990,843	-1.25%	54,120,619	-1.58%
July	55,706,218	54,880,884	-1.48%	53,855,458	-1.87%
August	55,637,150	54,808,379	-1.49%	53,903,392	-1.65%
September	55,741,181	54,507,988	-2.21%	53,908,572	-1.10%
October	55,648,412	54,245,089	-2.52%	53,543,132	-1.29%
Average Weekday Passengers					
Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	2,193,679	2,158,097	-1.62%	2,133,088	-1.16%
December	2,043,893	2,039,169	-0.23%	2,014,306	-1.22%
January	1,922,959	1,911,291	-0.61%	1,977,463	3.46%
February	2,006,241	2,025,650	0.97%	2,040,483	0.73%
March	2,261,636	2,173,629	-3.89%	2,156,619	-0.78%
April	2,144,827	2,112,535	-1.51%	2,091,071	-1.02%
May	2,272,491	2,230,261	-1.86%	2,166,722	-2.85%
June	2,159,655	2,092,836	-3.09%	2,043,624	-2.35%
July	2,020,257	1,953,211	-3.32%	1,909,568	-2.23%
August	1,933,097	1,885,508	-2.46%	1,869,883	-0.83%
September	2,269,196	2,107,483	-7.13%	2,128,381	0.99%
October	2,283,768	2,205,022	-3.45%	2,072,387	-6.02%

MTA Bus Company

Revenue Passengers					
Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	10,156,366	10,098,386	-0.57%	10,324,241	2.24%
December	9,942,627	10,491,414	5.52%	10,524,956	0.32%
January	9,436,030	9,498,182	0.66%	9,464,783	-0.35%
February	9,007,308	9,112,713	1.17%	9,650,946	5.91%
March	10,804,408	11,036,594	2.15%	11,393,621	3.23%
April	10,568,960	10,752,047	1.73%	10,566,032	-1.73%
May	11,192,859	10,954,849	-2.13%	11,022,447	0.62%
June	10,566,947	10,660,010	0.88%	10,778,433	1.11%
July	10,414,380	10,461,178	0.45%	10,002,577	-4.38%
August	10,055,633	10,113,391	0.57%	10,491,025	3.73%
September	11,134,458	10,627,657	-4.55%	10,898,004	2.54%
October	11,810,454	11,333,752	-4.04%	10,831,627	-4.43%
12 Month Ave	10,424,203	10,428,348	0.04%	10,495,724	0.65%
Year-to-Date	104,991,437	104,550,373	-0.42%	105,099,494	0.53%
12 Month Averages					
Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	10,408,546	10,419,371	0.10%	10,447,169	0.27%
December	10,412,599	10,465,103	0.50%	10,449,964	-0.14%
January	10,340,007	10,470,282	1.26%	10,447,181	-0.22%
February	10,286,529	10,479,066	1.87%	10,492,034	0.12%
March	10,311,085	10,498,415	1.82%	10,521,786	0.22%
April	10,271,336	10,513,672	2.36%	10,506,285	-0.07%
May	10,265,915	10,493,838	2.22%	10,511,918	0.17%
June	10,312,844	10,501,593	1.83%	10,521,786	0.19%
July	10,343,981	10,505,493	1.56%	10,483,570	-0.21%
August	10,355,666	10,510,306	1.49%	10,515,039	0.05%
September	10,407,746	10,468,073	0.58%	10,537,568	0.66%
October	10,424,203	10,428,348	0.04%	10,495,724	0.65%
Average Weekday Passengers					
Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	410,328	420,197	2.41%	418,413	-0.42%
December	388,825	399,293	2.69%	398,969	-0.08%
January	361,347	370,707	2.59%	387,423	4.51%
February	381,461	393,191	3.08%	398,129	1.26%
March	421,636	423,737	0.50%	425,372	0.39%
April	404,704	413,022	2.06%	413,769	0.18%
May	432,168	433,656	0.34%	428,947	-1.09%
June	412,766	408,956	-0.92%	411,220	0.55%
July	389,844	387,040	-0.72%	385,550	-0.39%
August	379,207	376,831	-0.63%	381,719	1.30%
September	439,524	415,874	-5.38%	428,697	3.08%
October	442,183	430,760	-2.58%	418,094	-2.94%

MTA Staten Island Railway

Revenue Passengers

Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	351,758	351,734	-0.01%	376,346	7.00%
December	347,265	369,585	6.43%	397,292	7.50%
January	357,221	336,800	-5.72%	363,383	7.89%
February	315,154	311,519	-1.15%	335,796	7.79%
March	373,386	393,272	5.33%	412,851	4.98%
April	360,578	376,535	4.43%	371,087	-1.45%
May	385,989	390,089	1.06%	394,816	1.21%
June	378,355	406,750	7.50%	402,135	-1.13%
July	342,895	359,630	4.88%	327,407	-8.96%
August	311,243	331,564	6.53%	348,194	5.02%
September	391,276	386,275	-1.28%	404,713	4.77%
October	430,201	435,865	1.32%	400,241	-8.17%
12 Month Ave	362,110	370,802	2.40%	377,855	1.90%
Year-to-Date	3,646,297	3,728,299	2.25%	3,760,623	0.87%

12 Month Averages

Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	349,719	362,108	3.54%	372,853	2.97%
December	351,714	363,968	3.48%	375,161	3.08%
January	350,980	362,266	3.22%	377,377	4.17%
February	350,928	361,963	3.14%	379,400	4.82%
March	353,474	363,621	2.87%	381,031	4.79%
April	353,088	364,950	3.36%	380,577	4.28%
May	353,498	365,292	3.34%	380,971	4.29%
June	355,986	367,658	3.28%	380,587	3.52%
July	359,535	369,053	2.65%	377,901	2.40%
August	359,715	370,746	3.07%	379,287	2.30%
September	361,678	370,330	2.39%	380,824	2.83%
October	362,110	370,802	2.40%	377,855	1.90%

Average Weekday Passengers

Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	16,011	16,296	1.77%	17,361	6.54%
December	14,815	15,248	2.92%	16,372	7.37%
January	14,995	14,543	-3.02%	16,441	13.06%
February	14,860	14,883	0.15%	15,738	5.75%
March	16,025	16,442	2.60%	16,674	1.41%
April	14,953	15,604	4.36%	16,039	2.79%
May	16,310	17,077	4.70%	16,949	-0.75%
June	16,110	16,876	4.75%	16,613	-1.56%
July	13,854	14,458	4.36%	13,990	-3.24%
August	12,742	13,653	7.15%	13,672	0.14%
September	16,792	16,818	0.15%	17,389	3.40%
October	17,290	18,135	4.89%	17,329	-4.44%

MTA Long Island Rail Road

Revenue Passengers					
Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	6,666,796	6,681,433	0.22%	7,027,591	5.18%
December	7,203,125	7,587,185	5.33%	7,760,262	2.28%
January	6,565,428	6,362,309	-3.09%	6,483,006	1.90%
February	6,107,685	6,142,068	0.56%	6,614,306	7.69%
March	6,983,094	7,384,700	5.75%	7,757,041	5.04%
April	7,189,777	7,313,844	1.73%	7,271,823	-0.57%
May	7,250,532	7,262,655	0.17%	7,483,655	3.04%
June	7,509,011	7,777,803	3.58%	7,969,169	2.46%
July	7,626,108	7,873,688	3.25%	7,621,000	-3.21%
August	7,399,382	7,563,444	2.22%	7,940,051	4.98%
September	7,297,453	7,491,598	2.66%	7,589,091	1.30%
October	7,663,987	7,686,741	0.30%	7,553,444	-1.73%
12 Month Ave	7,121,865	7,260,622	1.95%	7,422,536	2.23%
Year-to-Date	71,592,458	72,858,849	1.77%	74,282,585	1.95%
12 Month Averages					
Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	6,920,002	7,123,085	2.93%	7,289,469	2.34%
December	6,948,675	7,155,090	2.97%	7,303,892	2.08%
January	6,943,439	7,138,163	2.80%	7,313,950	2.46%
February	6,950,689	7,141,028	2.74%	7,353,303	2.97%
March	6,957,791	7,174,495	3.11%	7,384,332	2.92%
April	6,976,801	7,184,834	2.98%	7,380,830	2.73%
May	6,988,309	7,185,845	2.83%	7,399,246	2.97%
June	7,031,165	7,208,244	2.52%	7,415,194	2.87%
July	7,049,914	7,228,875	2.54%	7,394,136	2.29%
August	7,060,303	7,242,547	2.58%	7,425,520	2.53%
September	7,102,532	7,258,726	2.20%	7,433,645	2.41%
October	7,121,865	7,260,622	1.95%	7,422,536	2.23%
Average Weekday Passengers					
Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	304,762	318,659	4.56%	319,904	0.39%
December	296,888	301,964	1.71%	309,372	2.45%
January	277,061	283,228	2.23%	298,683	5.46%
February	282,588	285,444	1.01%	292,604	2.51%
March	291,919	297,011	1.74%	301,360	1.46%
April	289,571	294,548	1.72%	305,742	3.80%
May	302,178	314,372	4.04%	311,313	-0.97%
June	308,600	310,718	0.69%	319,475	2.82%
July	302,669	312,440	3.23%	326,075	4.36%
August	302,316	308,139	1.93%	303,263	-1.58%
September	305,806	313,050	2.37%	318,591	1.77%
October	298,040	309,872	3.97%	315,279	1.74%

MTA Metro-North Railroad

Revenue Passengers					
Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	6,680,246	6,685,728	0.08%	6,998,173	4.67%
December	7,062,872	7,502,155	6.22%	7,632,258	1.73%
January	6,526,250	6,304,068	-3.40%	6,468,097	2.60%
February	5,963,984	5,972,025	0.13%	6,443,054	7.89%
March	6,824,170	7,171,308	5.09%	7,531,600	5.02%
April	7,159,018	7,283,033	1.73%	7,118,939	-2.25%
May	7,169,671	7,181,256	0.16%	7,197,619	0.23%
June	7,360,103	7,606,986	3.35%	7,679,577	0.95%
July	7,520,253	7,647,375	1.69%	7,245,013	-5.26%
August	7,078,935	7,201,809	1.74%	7,444,260	3.37%
September	7,215,858	7,352,209	1.89%	7,269,161	-1.13%
October	7,653,001	7,667,660	0.19%	7,444,035	-2.92%
12 Month Ave	7,017,863	7,131,301	1.62%	7,205,982	1.05%
Year-to-Date	70,471,243	71,387,729	1.30%	71,841,355	0.64%
12 Month Averages					
Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	6,943,771	7,018,320	1.07%	7,157,338	1.98%
December	6,948,209	7,054,927	1.54%	7,168,180	1.61%
January	6,935,635	7,036,412	1.45%	7,181,849	2.07%
February	6,932,967	7,037,982	1.50%	7,221,102	2.61%
March	6,921,533	7,066,010	2.09%	7,251,126	2.62%
April	6,925,932	7,076,345	2.17%	7,237,451	2.28%
May	6,923,546	7,077,310	2.22%	7,238,815	2.28%
June	6,945,597	7,097,884	2.19%	7,244,864	2.07%
July	6,963,937	7,108,477	2.08%	7,211,334	1.45%
August	6,959,493	7,118,717	2.29%	7,231,538	1.58%
September	6,995,304	7,130,079	1.93%	7,224,618	1.33%
October	7,017,863	7,131,301	1.62%	7,205,982	1.05%
Average Weekday Passengers					
Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	291,100	299,951	3.04%	300,366	0.14%
December	285,736	295,383	3.38%	296,167	0.27%
January	268,835	261,367	-2.78%	269,313	3.04%
February	270,975	268,325	-0.98%	268,755	0.16%
March	279,347	282,459	1.11%	280,715	-0.62%
April	287,779	289,364	0.55%	281,999	-2.55%
May	291,057	294,073	1.04%	282,149	-4.05%
June	302,876	301,323	-0.51%	295,822	-1.83%
July	296,775	297,811	0.35%	288,191	-3.23%
August	284,812	285,374	0.20%	275,500	-3.46%
September	298,002	298,666	0.22%	288,234	-3.49%
October	296,293	299,864	1.21%	287,135	-4.24%

East of Hudson

Revenue Passengers					
Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	6,556,763	6,555,045	-0.03%	6,859,735	4.65%
December	6,927,541	7,356,438	6.19%	7,486,228	1.76%
January	6,398,208	6,173,389	-3.51%	6,340,920	2.71%
February	5,846,639	5,849,842	0.05%	6,313,644	7.93%
March	6,684,169	7,018,867	5.01%	7,378,875	5.13%
April	7,018,716	7,134,749	1.65%	6,980,262	-2.17%
May	7,028,443	7,038,334	0.14%	7,052,626	0.20%
June	7,213,680	7,450,980	3.29%	7,526,378	1.01%
July	7,366,433	7,490,170	1.68%	7,097,402	-5.24%
August	6,935,605	7,054,321	1.71%	7,288,957	3.33%
September	7,072,104	7,202,664	1.85%	7,123,553	-1.10%
October	7,499,635	7,513,131	0.18%	7,321,189	-2.55%
12 Month Ave	6,878,995	6,986,494	1.56%	7,064,147	1.11%
Year-to-Date	69,063,632	69,926,447	1.25%	70,423,806	0.71%
12 Month Averages					
Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	6,814,649	6,878,852	0.94%	7,011,885	1.93%
December	6,816,857	6,914,593	1.43%	7,022,701	1.56%
January	6,803,409	6,895,858	1.36%	7,036,662	2.04%
February	6,800,316	6,896,125	1.41%	7,075,312	2.60%
March	6,788,349	6,924,016	2.00%	7,105,313	2.62%
April	6,792,129	6,933,686	2.08%	7,092,439	2.29%
May	6,789,411	6,934,510	2.14%	7,093,630	2.29%
June	6,810,598	6,954,285	2.11%	7,099,913	2.09%
July	6,828,091	6,964,597	2.00%	7,067,182	1.47%
August	6,823,090	6,974,490	2.22%	7,086,735	1.61%
September	6,857,510	6,985,370	1.86%	7,080,143	1.36%
October	6,878,995	6,986,494	1.56%	7,064,147	1.11%
Average Weekday Passengers					
Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	284,607	292,710	2.85%	293,087	0.13%
December	279,287	288,744	3.39%	289,518	0.27%
January	262,725	254,821	-3.01%	262,627	3.06%
February	264,816	261,911	-1.10%	262,291	0.14%
March	272,688	275,526	1.04%	274,064	-0.53%
April	281,399	282,620	0.43%	275,402	-2.55%
May	284,329	286,935	0.92%	275,241	-4.08%
June	295,913	294,228	-0.57%	288,855	-1.83%
July	289,768	290,649	0.30%	280,820	-3.38%
August	277,998	278,362	0.13%	268,731	-3.46%
September	291,153	291,542	0.13%	281,296	-3.51%
October	289,611	292,836	1.11%	281,296	-3.94%

Harlem Line

Revenue Passengers					
Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	2,160,739	2,138,624	-1.02%	2,239,569	4.72%
December	2,303,474	2,398,294	4.12%	2,442,546	1.85%
January	2,136,239	2,040,760	-4.47%	2,098,696	2.84%
February	1,958,194	1,931,569	-1.36%	2,097,939	8.61%
March	2,225,318	2,335,202	4.94%	2,435,142	4.28%
April	2,303,958	2,330,964	1.17%	2,295,023	-1.54%
May	2,295,131	2,288,972	-0.27%	2,290,681	0.07%
June	2,337,339	2,416,982	3.41%	2,439,435	0.93%
July	2,363,438	2,406,276	1.81%	2,277,356	-5.36%
August	2,206,725	2,252,057	2.05%	2,348,207	4.27%
September	2,298,402	2,346,955	2.11%	2,333,897	-0.56%
October	2,465,785	2,472,035	0.25%	2,403,597	-2.77%
12 Month Ave	2,254,562	2,279,891	1.12%	2,308,507	1.26%
Year-to-Date	22,590,529	22,821,772	1.02%	23,019,973	0.87%
12 Month Averages					
Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	2,241,707	2,252,719	0.49%	2,288,303	1.58%
December	2,245,806	2,260,621	0.66%	2,291,991	1.39%
January	2,241,912	2,252,664	0.48%	2,296,819	1.96%
February	2,240,156	2,250,445	0.46%	2,310,683	2.68%
March	2,237,048	2,259,602	1.01%	2,319,011	2.63%
April	2,238,502	2,261,853	1.04%	2,316,016	2.39%
May	2,235,878	2,261,340	1.14%	2,316,158	2.42%
June	2,243,604	2,267,976	1.09%	2,318,030	2.21%
July	2,246,354	2,271,546	1.12%	2,307,286	1.57%
August	2,244,017	2,275,324	1.40%	2,315,299	1.76%
September	2,252,109	2,279,370	1.21%	2,314,211	1.53%
October	2,254,562	2,279,891	1.12%	2,308,507	1.26%
Average Weekday Passengers					
Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	94,617	96,470	1.96%	96,730	0.27%
December	93,600	94,891	1.38%	95,346	0.48%
January	88,158	84,941	-3.65%	87,650	3.19%
February	89,179	87,218	-2.20%	87,698	0.55%
March	91,373	92,289	1.00%	90,893	-1.51%
April	92,964	93,050	0.09%	91,219	-1.97%
May	93,578	94,368	0.84%	90,169	-4.45%
June	96,687	96,266	-0.44%	94,302	-2.04%
July	93,783	94,386	0.64%	91,224	-3.35%
August	89,396	89,923	0.59%	87,200	-3.03%
September	95,338	95,719	0.40%	92,772	-3.08%
October	95,720	97,017	1.35%	92,772	-4.38%

Hudson Line

Revenue Passengers					
Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	1,280,951	1,271,965	-0.70%	1,317,990	3.62%
December	1,255,542	1,419,350	13.05%	1,438,103	1.32%
January	1,230,001	1,185,529	-3.62%	1,216,365	2.60%
February	1,134,115	1,135,396	0.11%	1,219,067	7.37%
March	1,288,797	1,370,062	6.31%	1,433,576	4.64%
April	1,384,546	1,397,902	0.96%	1,363,513	-2.46%
May	1,381,606	1,381,366	-0.02%	1,397,282	1.15%
June	1,422,392	1,448,469	1.83%	1,460,876	0.86%
July	1,454,534	1,464,154	0.66%	1,402,439	-4.22%
August	1,381,075	1,397,488	1.19%	1,442,263	3.20%
September	1,402,529	1,420,180	1.26%	1,404,276	-1.12%
October	1,465,645	1,468,000	0.16%	1,453,574	-0.98%
12 Month Ave	1,340,144	1,363,322	1.73%	1,379,110	1.16%
Year-to-Date	13,545,240	13,668,546	0.91%	13,793,231	0.91%
12 Month Averages					
Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	1,328,644	1,339,396	0.81%	1,367,157	2.07%
December	1,323,130	1,353,046	2.26%	1,368,720	1.16%
January	1,321,391	1,349,340	2.12%	1,371,290	1.63%
February	1,319,982	1,349,447	2.23%	1,378,262	2.14%
March	1,317,667	1,356,219	2.93%	1,383,555	2.02%
April	1,320,121	1,357,332	2.82%	1,380,689	1.72%
May	1,318,854	1,357,312	2.92%	1,382,016	1.82%
June	1,323,190	1,359,485	2.74%	1,383,050	1.73%
July	1,332,378	1,360,287	2.09%	1,377,907	1.30%
August	1,333,039	1,361,655	2.15%	1,381,638	1.47%
September	1,338,663	1,363,126	1.83%	1,380,313	1.26%
October	1,340,144	1,363,322	1.73%	1,379,110	1.16%
Average Weekday Passengers					
Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	55,544	56,666	2.02%	56,152	-0.91%
December	50,648	55,712	10.00%	55,642	-0.12%
January	50,387	48,922	-2.91%	50,314	2.85%
February	51,284	50,800	-0.94%	50,631	-0.33%
March	52,564	53,704	2.17%	53,190	-0.96%
April	55,355	55,226	-0.23%	53,679	-2.80%
May	55,684	56,057	0.67%	54,261	-3.20%
June	58,063	56,988	-1.85%	55,882	-1.94%
July	56,978	56,554	-0.74%	55,091	-2.59%
August	55,092	54,834	-0.47%	52,999	-3.35%
September	57,423	57,125	-0.52%	55,229	-3.32%
October	56,450	56,955	0.89%	55,229	-3.03%

New Haven Line

Revenue Passengers					
Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	3,115,073	3,144,456	0.94%	3,302,176	5.02%
December	3,368,525	3,538,794	5.05%	3,605,579	1.89%
January	3,031,968	2,947,100	-2.80%	3,025,859	2.67%
February	2,754,330	2,782,877	1.04%	2,996,638	7.68%
March	3,170,054	3,313,603	4.53%	3,510,157	5.93%
April	3,330,212	3,405,883	2.27%	3,321,726	-2.47%
May	3,351,706	3,367,996	0.49%	3,364,663	-0.10%
June	3,453,949	3,585,529	3.81%	3,626,067	1.13%
July	3,548,461	3,619,740	2.01%	3,417,607	-5.58%
August	3,347,805	3,404,776	1.70%	3,498,487	2.75%
September	3,371,173	3,435,529	1.91%	3,385,380	-1.46%
October	3,568,205	3,573,096	0.14%	3,464,018	-3.05%
12 Month Ave	3,284,288	3,343,282	1.80%	3,376,530	0.99%
Year-to-Date	32,927,863	33,436,129	1.54%	33,610,602	0.52%
12 Month Averages					
Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	3,244,299	3,286,737	1.31%	3,356,425	2.12%
December	3,247,921	3,300,926	1.63%	3,361,990	1.85%
January	3,240,107	3,293,854	1.66%	3,368,554	2.27%
February	3,240,178	3,296,233	1.73%	3,386,367	2.73%
March	3,233,634	3,308,195	2.31%	3,402,747	2.86%
April	3,233,507	3,314,501	2.50%	3,395,733	2.45%
May	3,234,679	3,315,859	2.51%	3,395,456	2.40%
June	3,243,804	3,326,824	2.56%	3,398,834	2.16%
July	3,249,359	3,332,763	2.57%	3,381,989	1.48%
August	3,246,034	3,337,511	2.82%	3,389,799	1.57%
September	3,266,738	3,342,874	2.33%	3,385,620	1.28%
October	3,284,288	3,343,282	1.80%	3,376,530	0.99%
Average Weekday Passengers					
Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	134,447	139,574	3.81%	140,206	0.45%
December	135,039	138,141	2.30%	138,530	0.28%
January	124,180	120,958	-2.59%	124,663	3.06%
February	124,353	123,893	-0.37%	123,962	0.06%
March	128,751	129,533	0.61%	129,981	0.35%
April	133,080	134,344	0.95%	130,504	-2.86%
May	135,067	136,510	1.07%	130,812	-4.17%
June	141,163	140,974	-0.13%	138,671	-1.63%
July	139,007	139,710	0.51%	134,505	-3.73%
August	133,509	133,604	0.07%	128,532	-3.80%
September	138,392	138,697	0.22%	133,295	-3.90%
October	137,441	138,865	1.04%	133,295	-4.01%

West of Hudson

Revenue Passengers

Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	123,483	130,683	5.83%	138,438	5.93%
December	135,331	145,717	7.67%	146,030	0.21%
January	128,042	130,679	2.06%	127,177	-2.68%
February	117,345	122,183	4.12%	129,410	5.91%
March	140,001	152,441	8.89%	152,725	0.19%
April	140,302	148,284	5.69%	138,677	-6.48%
May	141,228	142,922	1.20%	144,993	1.45%
June	146,423	156,006	6.54%	153,199	-1.80%
July	153,820	157,205	2.20%	147,611	-6.10%
August	143,330	147,488	2.90%	155,303	5.30%
September	143,754	149,545	4.03%	145,608	-2.63%
October	153,366	154,529	0.76%	122,846	-20.50%
12 Month Ave	138,869	144,807	4.28%	141,835	-2.05%
Year-to-Date	1,407,611	1,461,282	3.81%	1,417,549	-2.99%

12 Month Averages

Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	129,121	139,469	8.01%	145,453	4.29%
December	131,352	140,334	6.84%	145,479	3.67%
January	132,226	140,554	6.30%	145,187	3.30%
February	132,651	140,957	6.26%	145,790	3.43%
March	133,184	141,994	6.61%	145,813	2.69%
April	133,803	142,659	6.62%	145,013	1.65%
May	134,136	142,800	6.46%	145,185	1.67%
June	134,998	143,599	6.37%	144,951	0.94%
July	135,847	143,881	5.91%	144,152	0.19%
August	136,403	144,227	5.74%	144,803	0.40%
September	137,793	144,710	5.02%	144,475	-0.16%
October	138,869	144,807	4.28%	141,835	-2.05%

Average Weekday Passengers

Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	6,493	7,241	11.52%	7,279	0.52%
December	6,449	6,639	2.95%	6,649	0.15%
January	6,109	6,546	7.15%	6,686	2.14%
February	6,159	6,414	4.15%	6,464	0.78%
March	6,659	6,933	4.12%	6,651	-4.07%
April	6,380	6,744	5.70%	6,597	-2.18%
May	6,728	7,138	6.09%	6,908	-3.22%
June	6,964	7,095	1.88%	6,967	-1.80%
July	7,008	7,162	2.20%	7,371	2.92%
August	6,814	7,012	2.91%	6,769	-3.47%
September	6,849	7,124	4.02%	6,938	-2.61%
October	6,682	7,028	5.18%	5,839	-16.92%

Port Jervis Line

Revenue Passengers

Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	75,365	78,265	3.85%	82,436	5.33%
December	83,241	87,965	5.68%	86,298	-1.90%
January	77,576	77,335	-0.31%	74,238	-4.00%
February	71,485	72,288	1.12%	76,153	5.35%
March	84,471	89,367	5.80%	90,131	0.85%
April	85,808	88,480	3.11%	82,641	-6.60%
May	85,895	86,116	0.26%	86,106	-0.01%
June	87,459	92,381	5.63%	89,903	-2.68%
July	93,470	93,755	0.30%	87,847	-6.30%
August	86,344	88,786	2.83%	92,440	4.12%
September	86,526	89,066	2.94%	87,908	-1.30%
October	93,068	93,069	0.00%	76,963	-17.31%
12 Month Ave	84,226	86,406	2.59%	84,422	-2.30%
Year-to-Date	852,102	870,643	2.18%	844,330	-3.02%

12 Month Averages

Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	80,656	84,467	4.72%	86,754	2.71%
December	81,947	84,861	3.56%	86,615	2.07%
January	82,281	84,841	3.11%	86,357	1.79%
February	82,442	84,908	2.99%	86,679	2.09%
March	82,609	85,316	3.28%	86,742	1.67%
April	82,879	85,539	3.21%	86,256	0.84%
May	82,947	85,557	3.15%	86,255	0.82%
June	83,283	85,967	3.22%	86,049	0.09%
July	83,465	85,991	3.03%	85,556	-0.51%
August	83,228	86,194	3.56%	85,861	-0.39%
September	83,719	86,406	3.21%	85,764	-0.74%
October	84,226	86,406	2.59%	84,422	-2.30%

Average Weekday Passengers

Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	3,963	4,335	9.39%	4,334	-0.02%
December	3,967	4,008	1.03%	3,930	-1.95%
January	3,703	3,875	4.65%	3,902	0.70%
February	3,750	3,793	1.16%	3,803	0.26%
March	4,017	4,065	1.20%	3,926	-3.42%
April	3,902	4,024	3.12%	3,931	-2.31%
May	4,092	4,300	5.07%	4,103	-4.58%
June	4,159	4,202	1.04%	4,089	-2.69%
July	4,260	4,273	0.31%	4,386	2.64%
August	4,104	4,221	2.85%	4,030	-4.52%
September	4,123	4,243	2.91%	4,189	-1.27%
October	4,056	4,233	4.36%	3,657	-13.61%

Pascack Valley Line

Revenue Passengers

Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	48,118	52,418	8.94%	56,002	6.84%
December	52,090	57,752	10.87%	59,732	3.43%
January	50,466	53,344	5.70%	52,939	-0.76%
February	45,860	49,895	8.80%	53,257	6.74%
March	55,530	63,074	13.59%	62,594	-0.76%
April	54,494	59,804	9.74%	56,036	-6.30%
May	55,333	56,806	2.66%	58,887	3.66%
June	58,964	63,625	7.90%	63,296	-0.52%
July	60,350	63,450	5.14%	59,764	-5.81%
August	56,986	58,702	3.01%	62,863	7.09%
September	57,228	60,479	5.68%	57,700	-4.59%
October	60,298	61,460	1.93%	45,883	-25.34%
12 Month Ave	54,643	58,401	6.88%	57,413	-1.69%
Year-to-Date	555,509	590,639	6.32%	573,219	-2.95%

12 Month Averages

Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	48,465	55,001	13.49%	58,699	6.72%
December	49,405	55,473	12.28%	58,864	6.11%
January	49,945	55,713	11.55%	58,831	5.60%
February	50,209	56,049	11.63%	59,111	5.46%
March	50,575	56,678	12.07%	59,071	4.22%
April	50,923	57,121	12.17%	58,757	2.86%
May	51,189	57,243	11.83%	58,930	2.95%
June	51,716	57,632	11.44%	58,903	2.21%
July	52,382	57,890	10.52%	58,596	1.22%
August	53,175	58,033	9.14%	58,942	1.57%
September	54,074	58,304	7.82%	58,711	0.70%
October	54,643	58,401	6.88%	57,413	-1.69%

Average Weekday Passengers

Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	2,530	2,906	14.86%	2,945	1.34%
December	2,482	2,631	6.00%	2,719	3.34%
January	2,406	2,671	10.99%	2,784	4.23%
February	2,409	2,621	8.80%	2,661	1.53%
March	2,642	2,868	8.55%	2,725	-4.99%
April	2,478	2,720	9.77%	2,666	-1.99%
May	2,636	2,838	7.67%	2,805	-1.16%
June	2,805	2,893	3.14%	2,878	-0.52%
July	2,748	2,889	5.14%	2,985	3.32%
August	2,710	2,791	2.99%	2,739	-1.86%
September	2,726	2,881	5.69%	2,749	-4.58%
October	2,626	2,795	6.44%	2,182	-21.93%

MTA Bridges & Tunnels

Revenue Vehicles					
Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	23,200,297	23,361,017	0.69%	24,793,552	6.13%
December	23,035,975	24,182,522	4.98%	25,385,215	4.97%
January	20,747,317	20,983,289	1.14%	22,206,860	5.83%
February	18,701,703	19,983,679	6.85%	22,379,445	11.99%
March	23,431,567	23,836,645	1.73%	25,678,007	7.72%
April	23,834,773	24,825,057	4.15%	25,460,062	2.56%
May	25,668,919	26,520,622	3.32%	27,041,559	1.96%
June	25,374,933	26,140,659	3.02%	27,281,473	4.36%
July	25,435,425	26,900,933	5.76%	27,279,840	1.41%
August	25,951,945	27,179,957	4.73%	27,620,446	1.62%
September	24,481,160	25,176,781	2.84%	26,028,046	3.38%
October	25,189,827	26,221,062	4.09%	26,025,189	-0.75%
12 Month Ave	23,754,487	24,609,352	3.60%	25,598,308	4.02%
Year-to-Date	238,817,569	247,768,684	3.75%	257,000,927	3.73%
12 Month Averages					
Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	23,737,233	23,767,880	0.13%	24,728,730	4.04%
December	23,710,625	23,863,426	0.64%	24,828,954	4.05%
January	23,582,050	23,883,090	1.28%	24,930,919	4.39%
February	23,487,861	23,989,921	2.14%	25,130,566	4.75%
March	23,492,490	24,023,678	2.26%	25,284,013	5.25%
April	23,508,839	24,106,202	2.54%	25,336,930	5.11%
May	23,560,811	24,177,177	2.62%	25,380,341	4.98%
June	23,613,806	24,240,987	2.66%	25,475,409	5.09%
July	23,659,548	24,363,113	2.97%	25,506,984	4.70%
August	23,685,826	24,465,447	3.29%	25,543,692	4.41%
September	23,741,750	24,523,416	3.29%	25,614,631	4.45%
October	23,754,487	24,609,352	3.60%	25,598,308	4.02%
Average Weekday Passengers					
Service Month	2013-2014	2014-2015	Percentage Change	2015-2016	Percentage Change
November	802,918	810,122	0.90%	853,314	5.33%
December	785,165	809,947	3.16%	844,618	4.28%
January	700,973	709,750	1.25%	790,094	11.32%
February	693,199	752,873	8.61%	803,140	6.68%
March	780,125	790,371	1.31%	845,050	6.92%
April	805,672	837,547	3.96%	864,797	3.25%
May	849,333	880,801	3.71%	897,859	1.94%
June	850,160	884,039	3.99%	921,464	4.23%
July	846,651	887,418	4.82%	907,622	2.28%
August	856,625	884,166	3.22%	900,785	1.88%
September	834,545	852,788	2.19%	889,630	4.32%
October	824,083	862,734	4.69%	867,119	0.51%

Fuel Hedge Program

Current ULSD Hedges

Date	Gallons Hedged	Percent of Expected Gallons Purchased	Weighted Average Hedge Price for each Month	2016 Adopted	2017 Final
				Budget (February Plan) Forecasted Commodity Price	Proposed Budget (November Plan) Forecasted Commodity Price
December-16	2,843,162	50	1.83	1.73	1.31
January-17	2,795,374	50	1.78	1.84	1.53
February-17	2,752,898	49	1.72	1.84	1.53
March-17	2,933,580	50	1.67	1.84	1.53
April-17	2,860,855	50	1.63	1.84	1.53
May-17	2,944,064	51	1.59	1.84	1.53
June-17	3,035,691	50	1.57	1.84	1.53
July-17	3,155,709	52	1.54	1.84	1.53
August-17	3,080,564	49	1.54	1.84	1.53
September-17	2,989,641	50	1.53	1.84	1.53
October-17	2,979,315	50	1.52	1.84	1.53
November-17	2,720,113	50	1.53	1.84	1.53
December-17	2,617,350	46	1.53	1.84	1.53
January-18	2,330,162	42	1.55	2.10	1.62
February-18	2,093,294	37	1.58	2.10	1.62
March-18	1,972,831	33	1.61	2.10	1.62
April-18	1,671,456	29	1.61	2.10	1.62
May-18	1,450,402	25	1.61	2.10	1.62
June-18	1,264,053	21	1.61	2.10	1.62
July-18	1,051,734	17	1.63	2.10	1.62
August-18	769,956	12	1.63	2.10	1.62
September-18	498,074	8	1.65	2.10	1.62
October-18	248,057	4	1.67	2.10	1.62

Annual Impact as of November 30, 2016

	<u>(\$ in millions)</u>		
	<u>2016</u>	<u>2017</u>	<u>2018</u>
<u>Ultra Low Sulfur Diesel</u>			
Current Prices vs. 2016 Adopted Budget	\$27.204	\$17.960	\$32.943
Impact of Hedge	<u>(30.779)</u>	<u>(0.492)</u>	<u>0.473</u>
Net Impact: Fav/(Unfav)	(\$3.575)	\$17.468	\$33.415
<u>Compressed Natural Gas</u>			
Current Prices vs. 2016 Adopted Budget	\$26.622	(\$4.348)	(\$1.798)
Impact of Hedge	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
Net Impact: Fav/(Unfav)	\$26.622	(\$4.348)	(\$1.798)
<u>Summary</u>			
Current Prices vs. 2016 Adopted Budget	\$53.827	\$13.612	\$31.145
Impact of Hedge	<u>(30.779)</u>	<u>(0.492)</u>	<u>0.473</u>
Net Impact: Fav/(Unfav)	\$23.047	\$13.120	\$31.618

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DECEMBER 2016
MTA REAL ESTATE
FINANCE COMMITTEE AGENDA ITEMS

1. ACTION ITEMS

MTA METRO-NORTH RAILROAD

- a. Lease with Spread NYC LLC dba tartinery for a fast casual food operation at Dining Concourse Retail Space Pavilion A at Grand Central Terminal, Manhattan

MTA LONG ISLAND RAIL ROAD

- b. Lease with Global Administrative Services, LLC for a taxi dispatch office and 6 taxi parking spaces, Little Neck
- c. Lease with Global Administrative Services, LLC for a taxi dispatch office and 5 taxi parking spaces, Lynbrook

2. INFORMATION ITEMS

- a. Status report on month-to-month licenses
- b. Status report on agreements entered into directly by Real Estate Department
- c. Status report on Grand Central Terminal Vanderbilt Hall events
- d. Status report on Grand Central Terminal Graybar Passage retail kiosk
- e. Permit with New York Yankees Partnership for construction staging behind Yankee Stadium
- f. Permit with Premium Outlet Partners for use of a portion of Metro-North's Harriman parking facility

Legal Name	Popular Name	Abbreviation
New York City Transit Authority	MTA New York City Transit	NYC Transit
The Long Island Rail Road Company	MTA Long Island Rail Road	LIRR
Metro-North Commuter Railroad Company	MTA Metro-North Railroad	MNR
Triborough Bridge and Tunnel Authority	MTA Bridges and Tunnels	MTA B&T
MTA Capital Construction Company	MTA Capital Construction	MTACC
MTA Bus Company	MTA Bus Company	MTA Bus

Staten Island Rapid Transit Operating Authority is a subsidiary of the Metropolitan Transportation Authority. Its popular name is MTA Staten Island Railway (abbreviated as SIR).

Manhattan and Bronx Surface Transit Operating Authority is a subsidiary of the New York City Transit Authority (abbreviated as MaBSTOA).

MTA METRO NORTH RAILROAD

Staff Summary

Subject LEASE AGREEMENT
Department REAL ESTATE
Department Head Name JEFFREY B. ROSEN
Department Head Signature 
Project Manager Name NANCY MARSHALL

Date DECEMBER 12, 2016
Vendor Name
Contract Number
Contract Manager Name
Table of Contents Ref. #

Board Action					
Order	To	Date	Approval	Info	Other
1	Finance Committee	12/12/16	X		
2	Board	12/14/16	X		

Internal Approvals			
Order	Approval	Order	Approval
		1	Legal 
3	Chief of Staff 		
2	Chief Financial Officer 		

AGENCY: MTA Metro-North Railroad ("Metro-North")
 LESSEE: Spread NYC LLC dba tartinery
 LOCATION: GCT Dining Concourse Pavilion A
 ACTIVITY: A fast casual food operation selling tenant-prepared menu items featuring signature tartines, salads, cheese boards/small plates, soups, sweets, juices, beer and wine.
 ACTION REQUESTED: Approval of terms
 TERM: 10 years
 SPACE: Approximately 1,223 square feet, plus approximately 250 square feet for storage
 COMPENSATION: Annual Base Rent plus 10% of gross sales over Breakpoint, as follows:

Year	Annual Base Rent	PSF	Breakpoint
1	\$430,000.00	\$351.59	\$3,500,000.00
2	\$442,900.00	\$362.14	\$3,605,000.00
3	\$456,187.00	\$373.01	\$3,713,150.00
4	\$469,872.61	\$384.20	\$3,824,544.50
5	\$483,968.79	\$395.72	\$3,939,280.84
6	\$498,487.85	\$407.59	\$4,057,459.26
7	\$513,442.49	\$419.82	\$4,179,183.04
8	\$528,845.76	\$432.42	\$4,304,558.53
9	\$544,711.13	\$445.39	\$4,433,695.28
10	\$561,052.47	\$458.75	\$4,566,706.14

STORAGE RENT: \$87.00 per sq. ft. per year, increasing annually by 3%
 MARKETING: \$11.30 per sq. ft. per year, increasing annually by 3%
 TRASH: \$19.54 per sq. ft. per year, increasing annually by 3%
 COMMON AREA MAINTENANCE: Estimated at \$110.58 per square foot, increasing annually by 3%. CAM charge will be imposed on the approximately 390 sf of employee work zone only.

Staff Summary

FINANCE COMMITTEE MEETING SPREAD NYC LLC dba tartinery (Cont'd)

SECURITY:	3 months minimum rent plus a guaranty from Ajax Holding (limited to 6 months' rent after vacating of premises)
INSURANCE:	Standard
CONSTRUCTION PERIOD:	120 days
TENANT IMPROVEMENT ALLOWANCE	As described below.

COMMENTS:

The subject space encompasses one of the two large free-standing food pavilions that currently exist in the Dining Concourse at Grand Central Terminal. In anticipation of the scheduled expirations of the leases relating to such kiosks, MTA Real Estate and Metro-North engaged Beyer, Blinder Belle, the architects that were responsible for the renovation of the Terminal back in the 1990s, to prepare designs to better light and otherwise refresh the portions of the Dining Concourse encompassing such pavilions, while addressing a variety of operational issues including reduced seating capacity in the Dining Concourse caused by the installation of the East Side Access escalators. The increased leasable square footage created by these design changes will provide for more customer seating, larger food preparation areas and more extensive merchandising/display zones, while public circulation patterns will be optimized.

A rendering of the new configuration of one of the two pavilions is included on page 3 of this staff summary.

With such designs in hand, MTA Real Estate issued two requests for proposals ("RFPs") – one for Pavilion A and the other for Pavilion B. Because such RFPs required the selected prospective tenants to perform extensive prescribed base building improvements, the RFPs stipulated that Landlord would provide each such tenant with a tenant improvement allowance equal to the lesser of \$500,000 or fifty percent (50%) of the total hard costs of construction such tenant incurs in preparing for its occupancy.

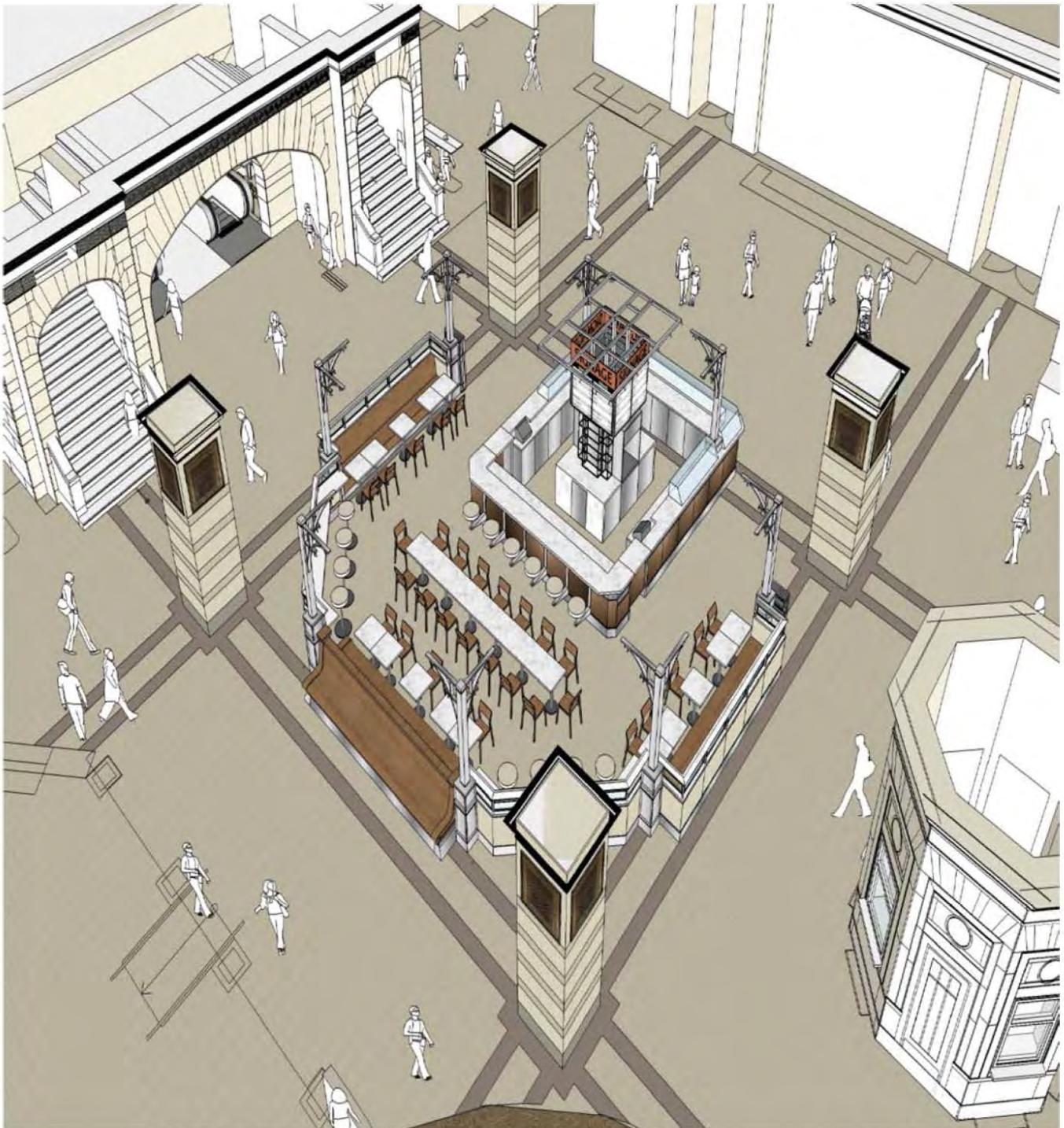
The result of the ensuing competition for Pavilion B is reported in a separate chart item in this month's Board materials. In response to the RFP for Pavilion A, ten proposals were received. Such proposals were submitted by tartinery, Salsa Express, Irving Farm, Dishes at Home, Obica, Yong Kang Street, Dr. Smood, Vintry, Melba's and Eli Zabar.

Per the Guidelines for Selection of Tenants for Grand Central Terminal approved by the MTA Board in November 2009, as amended in March 2014 and March 2016, such proposals were independently evaluated by Newmark Grubb Knight Frank and Jones Lang LaSalle, and subsequently evaluated by the Director of GCT Development. When evaluating the proposals, two evaluation criteria were taken into account. Selection Criterion A, which accounts for 70% of the score, is designed to reflect the direct economic value of a proposal. Selection Criterion B, which accounts for 30% of the score, is the evaluator's determination of a proposal's indirect economic benefit to the MTA. The Director of GCT Development's evaluation assigned tartinery the highest Total Selection Criteria Score, but because Salsa Express and Irving Farm offered higher guaranteed minimum rent a selection committee was convened.

The three-person selection committee reviewed and scored the eight proposals, and unanimously assigned tartinery both the highest Selection Criterion B Score and the highest Total Selection Criteria Score. Their averaged scoring is reflected in the annexed chart. The rent to be paid by Spread NYC LLC is higher than the estimated fair market rental value of the subject space as it had been determined by MTA's independent appraiser, Jerome Haims Realty, Inc.

Nicolas Dutko and Alicia Rountree opened the first tartinery in Nolita in 2010, a second at the Plaza Hotel's food hall in 2012 and a third in 2014 at Hudson Eats in Brookfield Place. As at its other locations, tartinery will offer healthy, seasonal fresh food combining the simplicity of high-quality ripe ingredients with the craftsmanship of French tartines. Customers will be able to order to-go at the counter or for consumption in the private seating area, a hybrid style of operation with which Nicolas and his brother Serguei have had significant experience and success.

Based on the foregoing, MTA Real Estate requests authorization to enter into a lease agreement with Spread NYC LLC on the above-described terms and conditions.



Staff Summary

FINANCE COMMITTEE MEETING SPREAD NYC LLC dba tartinery (Cont'd)

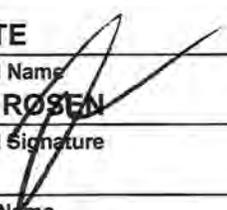
Grand Central Terminal Retail Leasing Evaluation Sheet
Evaluator: Selection Committee

Spaces: Dining Concourse Pavilion A (currently Irving Farm)
Date: July 13, 2016

PROPOSER	A Unadjusted Guaranteed Rent Amount	B Guaranteed Rent Adjustment Factor*	C Adjusted Guaranteed Rent Amount (A x B)	D Unadjusted Percentage Rent Amount	E Percentage Rent Adjustment Factor**	F Adjusted Percentage Rent Amount (D x E)	G Adjusted Total Rent Amount (C + F)	H Selection Criterion A Score *** (0-70)	I Selection Criterion B Score (0-30)	J Total Selection Criterion Score (H + I)
Salsa Express	\$3,864,069	1.0	\$3,864,069	\$584,886	-	-	\$3,864,069	70	11	81.0
Irving Farm	\$3,593,723	1.0	\$3,593,723	\$3,062	.16	\$510.00	\$3,594,233	65.1	21.3	86.4
Tartinery	\$3,577,086	1.0	\$3,577,086	\$705,768	.18	\$128,137	\$3,705,223	67.1	27.7	94.8
Dishes at Home/ Mini Mint	\$3,327,522	1.0	\$3,327,522	\$558,959	-	-	\$3,327,522	60.3	23.3	83.6
Obica	\$3,306,516	1.0	\$3,306,516	\$525,835	-	-	\$3,306,516	59.9	18.3	78.2
Yong Kang Street	\$2,895,061	1.0	\$2,895,061	\$84,062	-	-	\$2,895,061	52.4	11.6	64.0
Dr. Smood	\$2,797,821	1.0	\$2,797,821	\$2,644,015	-	-	\$2,797,821	50.7	19	69.7
Vntry	\$2,797,821	1.0	\$2,797,821	\$819,528	.38	\$313,155	\$3,110,976	56.3	26.6	83.0
Melba's	\$2,473,736	1.0	\$2,473,736	-	-	-	\$2,473,736	44.8	15	59.8
Eli Zabbar	\$2,394,900	1.0	\$2,394,900	\$1,009,467	.03	\$33,648	\$2,428,548	44	21.3	65.3

MTA LONG ISLAND RAIL ROAD

Staff Summary

Subject LEASE AGREEMENT
Department REAL ESTATE
Department Head Name JEFFREY B. ROSEN
Department Head Signature 
Project Manager Name ROBERT GOLDBERG

Date DECEMBER 12, 2016
Vendor Name
Contract Number
Contract Manager Name
Table of Contents Ref. #

Board Action					
Order	To	Date	Approval	Info	Other
1	Finance Committee	12/12/16	X		
2	Board	12/14/16	X		

Internal Approvals			
Order	Approval	Order	Approval
		1	Legal 
3	Chief of Staff 		
2	Chief Financial Officer 		

AGENCY: MTA Long Island Rail Road Company ("LIRR")
 LESSEE: Global Administrative Services, LLC
 LOCATION: Little Neck station, Borough/County of Queens
 ACTIVITY: Taxi dispatch office and 6 taxi parking spaces
 ACTION REQUESTED: Approval of terms
 TERM: 10 years
 SPACE: Dispatch office approximately 118 s/f; parking spaces approximately 120 s/f each
 RENT: \$17,250 first year with 3% increases annually thereafter during the term

COMMENTS:

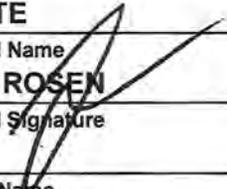
LIRR's taxi dispatch office and 6 taxi parking spaces were included in a recent RFP. The taxi office and spaces are located on the south side of the right of way, east of Little Neck Parkway, within the commuter parking lot. Global Administrative Services, LLC was the sole proposer and is the incumbent tenant. It offered rent in the amount of \$143,499.37 NPV for the proposed ten year term.

The tenant will be responsible for refurbishing and maintaining the interior of the taxi office and repainting the stripes for its parking spaces, as well as providing standard insurance coverages, at its sole cost and expense.

The proposed rent is within the range of fair market value for the property as estimated in advance by MTA Real Estate's independent consultant.

Based on the foregoing, MTA Real Estate requests authorization to enter into a lease with Global Administrative Services, LLC, on the above-described terms and conditions.

Staff Summary

Subject LEASE AGREEMENT
Department REAL ESTATE
Department Head Name JEFFREY B. ROSEN
Department Head Signature 
Project Manager Name ROBERT GOLDBERG

Date DECEMBER 12, 2016
Vendor Name
Contract Number
Contract Manager Name
Table of Contents Ref. #

Board Action					
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2	Board	12/14/16	X		

Internal Approvals			
Order	Approval	Order	Approval
		1	Legal 
3	Chief of Staff 		
2	Chief Financial Officer 		

AGENCY: MTA Long Island Rail Road Company ("LIRR")
 LESSEE: Global Administrative Services, LLC
 LOCATION: Lynbrook station, Nassau County
 ACTIVITY: Taxi dispatch office and five taxi parking spaces
 ACTION REQUESTED: Approval of terms
 TERM: 10 Years
 SPACE: Dispatch office approximately 220 s/f; parking spaces approximately 120 s/f each
 RENT: \$42,100 first year with 3% annual increases thereafter during the term

COMMENTS:

LIRR's taxi dispatch office and five taxi parking spaces at its Lynbrook station were included in a recent RFP. The taxi office and spaces are located on the south side of the elevated LIRR right of way, west of Broadway, within the commuter parking lot. Two proposals were submitted; (1) Global Administrative Services, LLC, an entity controlled by the principal owner of All Island Travel Corp. (the incumbent tenant of the dispatch office), submitted a proposal in the amount of \$350,208.89 NPV for the ten-year term and (2) Village Car Service, Inc., the incumbent tenant of the five taxi parking spaces, submitted a proposal in the amount of \$179,686.17 NPV for such term.

The selected tenant will be responsible for refurbishing the interior of the taxi office, repainting stripes for the taxi spaces, operation and maintenance of the premises and providing standard insurance coverages, at its sole cost and expense.

The proposed rent is consistent with the fair market rental value of the premises as estimated in advance by MTA Real Estate's independent consultant.

Based on the foregoing, MTA Real Estate requests authorization to enter into a lease with Global Administrative Services, LLC on the above-described terms and conditions.

INFORMATION ITEMS

Memorandum



Metropolitan Transportation Authority

State of New York

Date December 12, 2016

To Members of the Finance Committee

From Jeffrey B. Rosen, Director, Real Estate

Re **Status of Month-to-Month Licenses for Passenger Amenities**

In June 1988, the MTA Board adopted a policy, which allows the Real Estate Department to enter into month-to-month agreements for “passenger service oriented concessions without individual Committee or Board approval”. Attached is a status report of month-to-month agreements, which were executed pursuant to the policy.

TENANTS CURRENTLY ON MONTH-TO-MONTH AGREEMENTS

MONTH: DECEMBER 2016

AGENCY	LOCATION (STATION)	TENANT/USE	SF	DATE OF AGREEMENT	MONTHLY COMPENSATION	COMMENT
1. NYCT	WTC Station 8 th Ave. Line, Manhattan	Fakhrul Alam/Newsstand	420	January 2004	\$155	This retail space is to be eliminated to accommodate construction of a passage at the World Trade Center.
2. MNR	Grand Central Terminal	Grand Central Coffee Corp., d/b/a Irving Farm	253	February 2013	\$9,966	RFP was issued in 2016
3. MNR	Grand Central Terminal	Hudson News	1191	January 2010	\$5,000	Special site conditions require interim tenancy (East Side Access)
4. MNR	Croton Harmon Station	Dry Cleaning Drop Off	714	August 2013	\$2,159.70	To be publicly offered fourth quarter 2016
5. MNR	Grand Central Terminal	Diptyque	225	February 2, 2015	\$20,000	To be publicly offered in 2017
6. NYCT	Church Avenue, Nostrand Line, Brooklyn	Mahabubar Rahman/Newsstand	120	September 2015	\$2,500	To be publicly offered in 2017
7. MNR	Grand Central Terminal	Moleskine	316	September 1, 2015	\$15,000	To be publicly offered in 2017

Memorandum



Metropolitan Transportation Authority

State of New York

Date December 12, 2016

To Members of the Finance Committee

From Jeffrey B. Rosen, Director, Real Estate

Re **Report on Agreements Entered into Directly by the Real Estate Department via the RFP or negotiation process with tenants in good standing or through the RFP process when 3 or more proposals have been received from responsible proposers for a standard retail location**

Attached is a listing of agreements entered into directly by the Real Estate Department during preceding months, pursuant to the Board's resolutions of April 26, 2007 (Real Estate Policy #9) and November 13, 2013 (Real Estate Policy #33).

The resolutions authorizing Real Estate Policies #9 and #33 delegate authority to the Chairman, Executive Director, and Director of Real Estate to enter into lease or license agreements with tenants on behalf of the MTA and its agencies.

For each such agreement entered into pursuant to Real Estate Policy #9, the term may not exceed ten years, and aggregate compensation may not exceed \$300,000, or \$150,000 for five-year agreements. The resolution similarly delegates authority to renew license agreements with tenants in good standing with the same limitations.

For each such agreement entered into pursuant to Real Estate Policy #33, MTA Real Estate must have received at least three bids from responsible proposers, and must have entered into agreement with the responsible proposer which offered the highest guaranteed rent, on a present value basis.

**REPORT ON AGREEMENTS ENTERED INTO DIRECTLY BY THE REAL ESTATE DEPARTMENT
PURSUANT TO BOARD POLICY**

NOVEMBER 2016

Agency/Project Manager	Renewal/RFP Generated	Lessee	Location/Use	Term	Rental		Annual Increase	Size/Weekday Ridership	Price/SF	
					Year	Rent			Year	PSF
Nancy Marshall	RFP	Wired Chicken GCT, LLC dba Wired Chicken	DC Pavilion B (1223 sf) at Grand Central Terminal Retail Sale of Southern fried chicken and related main and side dishes	10 years	1	\$474,524.00	--	NA	1	\$388.00
					2	\$474,524.00	0%		2	\$388.00
					3	\$507,740.68	7%		3	\$415.16
					4	\$507,740.68	0%		4	\$415.16
					5	\$548,359.93	8%		5	\$448.37
					6	\$548,359.93	0%		6	\$448.37
					7	\$597,712.33	9%		7	\$488.73
					8	\$597,712.33	0%		8	\$488.73
					9	\$705,300.55	9%		9	\$576.70
					10	\$705,300.55	0%		10	\$576.70
Proposer name:		NPV @ 6% discount rate:								
Wired Chicken GCT, LLC		\$4,078,642								
Salsa Express		\$3,864,068								
Irving Farm		\$3,593,723								
Tartinery		\$3,577,086								
Dishes At Home/ Mini Mint		\$3,327,521								
Obica		\$3,306,517								
Yong Kang Street		\$2,895,062								
Dr. Smood		\$2,797,822								
Vintry		\$2,797,822								
Melba's		\$2,471,960								
Eli Zabar		\$2,394,899								

Memorandum



Metropolitan Transportation Authority

State of New York

Date December 12, 2016

To Members of the Finance Committee

From Jeffrey B. Rosen, Director, Real Estate

Re **GCT's Vanderbilt Hall Events Forecast**

The following report will be presented to the Real Estate Committee by GCT Development on a monthly basis. The events forecast will show events planned for Vanderbilt Hall in the next three to four month period. This calendar will always be subject to last minute changes for technical or scheduling reasons.

DEC 2016 Event Forecast

Event	Date	Description	Space	Use
Holiday Fair	Nov 7 - December 31	Booth Load in: Nov 7 - 11 Vendor Load in: Nov 12 - 13 Open: Nov 14 - Dec 24 Load Out: Dec 26 - 31	Vanderbilt Hall	Public

Memorandum



Metropolitan Transportation Authority

State of New York

Date December 12, 2016

To Members of the Finance Committee

From Jeffrey B. Rosen, Director, Real Estate

Re **GCT – Graybar Passage Retail Kiosks**

The following report will be presented by GCT Development office of the Real Estate Department whenever a new retail Permit Agreement has been entered into under the Retail Kiosk program approved by the MTA Board in January 2006.

GRAND CENTRAL TERMINAL
GRAYBAR PASSAGE RETAIL KIOSK PROGRAM
New Licensees-Month of December 2016

Licensee	License Dates	Use	Monthly Compensation
Karen Curtis	11/1/16-1/31/2017	Retail sale of licensee produced jewelry	11/1/2016 \$6000 12/1/2016 \$6000 01/1/2016 \$3100
MPR Jewelry	11/1/16-1/31/2017	Retail sale of licensee produced jewelry	11/1/2016 \$6000 12/1/2016 \$6000 01/1/2016 \$3100
Fego Design	11/1/16-1/31/2017	Retail sale of licensee produced jewelry	11/1/2016 \$6000 12/1/2016 \$6000 01/1/2016 \$3100
Victoria Bekerman	11/1/16-1/31/2017	Retail sale of licensee produced jewelry	11/1/2016 \$6000 12/1/2016 \$6000 01/1/2016 \$3100
Christina Stankard	11/1/16-1/31/2017	Retail sale of licensee produced jewelry	11/1/2016 \$6000 12/1/2016 \$6000 01/1/2016 \$3100
Tribal Home	11/1/16-1/31/2017	Retail sale of licensee produced tableware, lighting	11/1/2016 \$6000 12/1/2016 \$6000 01/1/2016 \$3100

Staff Summary

Subject PERMIT AGREEMENT
Department REAL ESTATE
Department Head Name JEFFREY B. ROSEN
Department Head Signature
Project Manager Name ARTURO ESPINOZA

Date DECEMBER 12, 2016
Vendor Name
Contract Number
Contract Manager Name
Table of Contents Ref. #

Board Action					
Order	To	Date	Approval	Info	Other
1	Finance Committee	12/12/16		X	

Internal Approvals			
Order	Approval	Order	Approval
			Legal
	Chief of Staff		
	Chief Financial Officer		

AGENCY: MTA New York City Transit ("NYCT")
 PERMITTOR: New York Yankees Partnership ("Yankees")
 LOCATION: Yankee Stadium, One East 161st Street, Bronx
 ACTIVITY: Access for construction staging
 TERM: January 1, 2017 to March 1, 2018
 SPACE: Approximately 3,000 square feet
 COMPENSATION: \$1.00; payment waived

COMMENTS:

In connection with façade and roof repair work at NYCT's Substation #44 adjacent to the above-referenced Location, MTA Real Estate reached out to Yankees management for the use of a driveway and service areas behind Yankee Stadium needed for staging of construction.

Following numerous field visits and meetings, both parties came to an agreement that satisfied the Yankees' security and scheduling concerns in a manner that would permit NYCT to effectuate its work on a timely basis.

MTA Legal approved the permit as to form and it was executed on the aforementioned terms and conditions pursuant to Board-approved Real Estate Department Policy #11 dated November 15, 1999, as amended February 24, 2010 and modified November 12, 2013.

Staff Summary

Subject PERMIT AGREEMENT
Department REAL ESTATE
Department Head Name JEFFREY B. ROSEN
Department Head Signature
Project Manager Name DAVID ROTH

Date DECEMBER 12, 2016
Vendor Name
Contract Number
Contract Manager Name
Table of Contents Ref. #

Board Action					
Order	To	Date	Approval	Info	Other
1	Finance Committee	12/12/16		X	

Internal Approvals			
Order	Approval	Order	Approval
			Legal
	Chief of Staff		
	Chief Financial Officer		

AGENCY: MTA Metro-North Railroad ("Metro-North")
PERMITTEE: Premium Outlet Partners, L.P.
LOCATION: Harriman Station parking facility, Harriman
ACTIVITY: Parking for Permittee's employees during Thanksgiving Day weekend shopping event
TERM: Thursday, November 26 through and including Sunday, November 29, 2016
SPACE: Up to 700 parking spaces
COMPENSATION: \$8,680 for the 4-day period

COMMENTS:

Pursuant to the 2011 Board policy governing use of railroad facilities by for-profit corporations for temporary access to parking facilities in connection with short-term commercial activities, Permittee, owner of the Woodbury Common mall, was granted permission to utilize part of the Harriman Station parking facility for employee parking during the Term. The Permit also allowed Permittee to use a shuttle bus to bring employees to and from the parking facility.

Compensation was calculated pursuant to the aforementioned Board policy.

MTA Legal approved the Permit as to form and Permittee provided appropriate insurance coverages and indemnification.

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