



Metropolitan Transportation Authority

# Meeting of the Metro-North Railroad Committee

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## March 2018

### Members

S. Metzger

N. Brown

R. Glucksman

C. Moerdler

J. Molloy

M. Pally

A. Saul

V. Vanterpool

J. Vitiello

C. Wortendyke

N. Zuckerman

# **Metro-North Railroad Committee Meeting**

**2 Broadway  
20th Floor Board Room  
New York, NY  
Monday, 3/19/2018  
8:30 - 9:30 AM ET**

## **1. Public Comments**

## **2. Approval of Minutes**

*Minutes - Page 4*

## **3. 2018 Work Plan**

*2018 MNR Work Plan - Page 12*

## **4. President's Reports**

### **Safety**

*MNR Safety Report - Page 20*

### **MTA Police Report**

*MTA Police Report - Page 22*

## **5. Action Item**

*MNR Action Item - Page 28*

### **Extension of Refund Period for Railroad Tickets**

*Extension of Refund Period of Railroad Tickets - Page 29*

## **6. Information Items**

*MNR Information Items - Page 31*

### **Annual Strategic Investments & Planning Studies**

*Annual Strategic Investments & Planning Studies - Page 32*

### **Annual Elevator & Escalator Report**

*Annual Escalator & Elevator Report - Page 62*

### **2017 Customer Satisfaction Survey Results**

*2017 Customer Satisfaction Survey Results - Page 73*

### **PTC Status Report**

*PTC Status Report - Page 118*

## **7. Procurements**

*MNR Procurements - Page 132*

### **Non-Competitive**

*MNR Non-Competitive Procurements - Page 136*

## **Competitive**

*MNR Competitive Procurements - Page 142*

## **8. Operations Report**

*MNR Operations Report - Page 146*

## **9. Financial Report**

*MNR Finance Report - Page 155*

## **10. Ridership Report**

*MNR Ridership Report - Page 175*

## **11. Capital Program Report**

*MNR Capital Program Report - Page 186*

Joint meeting with Long Island on Monday, April 23th @ 8:30 a.m.

Minutes of the Regular Meeting  
Metro-North Committee  
Monday, February 20, 2018

Meeting held at  
2 Broadway – 20<sup>th</sup> Floor  
New York, New York 10004  
8:30 a.m.

The following members were present:

Hon. Susan G. Metzger, Chair of the Metro-North Committee  
Hon. Mitchell H. Pally, Chair of the Long Island Rail Road Committee  
Hon. Norman Brown  
Hon. Randy Glucksman  
Hon. Charles G. Moerdler  
Hon. John J. Molloy  
Hon. Andrew Saul  
Hon. Veronica Vanterpool  
Hon. Carl V. Wortendyke  
Hon. Neal J. Zuckerman

Not Present:

Hon. James E. Vitiello

Also Present:

Catherine Rinaldi – Acting President, Metro-North Railroad  
Susan J. Doering – Vice President, Customer Service and Stations  
Yvonne Hill-Donald - Vice President, Human Resources  
Richard L. Gans – Vice President and General Counsel  
Glen Hayden – Vice President, Engineering  
John Kesich – Senior Vice President, Operations  
John Kennard – Vice President – Capital Programs  
Mark Mannix – Sr. Director, Corporate and Public Affairs  
Owen Monaghan, Chief, MTA Police Department  
Andrew Paul – Vice President, Labor Relations  
Kim Porcelain – Vice President, Finance and Information Systems  
Michael Shiffer – Vice President, Planning  
Justin Vonashek – Vice President, System Safety

The members of the Metro-North Committee met jointly with the members of the Long Island Committee. Ms. Metzger, as Chair of the Metro-North Committee, called the joint meeting to order. In addition to the Metro-North President and Metro-North staff noted above, President Nowakowski and various staff of the Long Island Rail Road attended the joint committee meeting.



The minutes of the Long Island Committee for the meeting of February 20, 2018, should be consulted for matters addressed at the joint meeting relating to the Long Island Rail Road.

### **PUBLIC COMMENT**

Orrin Getz, Vice Chairman Metro-North Railroad Commuter Council, commented on complaints he has received from Rockland County commuters regarding train breakdowns, cancelled trains and car shortages on the Pascack Valley Line. He stated that the breakdown of train 1606 at New Bridge Landing during the week of February 12, 2018 left many customers stranded along the railroad track. In response, New Jersey Transit has stated that it is very busy at the Meadows Maintenance Complex working to install Positive Train Control (PTC) on its railcars and locomotives. Mr. Getz stated that New Jersey Transit is behind on PTC implementation and may be subject to the imposition of fines. In addition, the President of Amtrak has warned New Jersey Transit that he will not allow New Jersey Transit trains to use the Hudson River tunnels into Penn Station unless the trains are properly equipped with PTC. Mr. Getz recommends that Metro-North management visit the Meadows Maintenance Complex to view New Jersey Transit's progress in the installation of PTC. Mr. Getz stated that he has worked with the new Executive Director of New Jersey Transit, Kevin Corbett, and hopes that he can meet with him and rekindle a strong relationship with him.

Murray Bodin expressed his opinion that PTC is a technology that is outdated and will not work. He commented on the red box painted on the roadway at the Roaring Brook Road crossing, stating that the box is illegal and not in compliance with regulations because people who are color blind are unable to see the color red.

Additional details of the comments made by the public speakers are contained in the video recording of the meeting produced by the MTA and maintained in the MTA records.

### **APPROVAL OF MINUTES AND METRO-NORTH 2018 WORK PLAN**

Upon motion duly made and seconded, the Committee approved the minutes of the January 22, 2018 Metro-North Committee meeting. There are no changes to the 2018 Metro-North Railroad Committee Work Plan, a copy of which is filed with the records of this meeting.

### **MTA METRO-NORTH RAILROAD PRESIDENT'S REPORT**

Acting President Rinaldi reported that Metro-North has expanded wayside Civil Speed Enforcement on the Hudson Line from Spuyten Duyvil to Ardsley, on the Harlem Line from Woodlawn to North White Plains and on the Waterbury Branch. Metro-North expects to complete implementation of Civil Speed Enforcement for the remaining east of Hudson territory and will begin operating diesel consists with Civil Speed Enforcement. In March 2018, Metro-North will begin operating M-7 trains on the Harlem and Hudson Lines with Civil Speed Enforcement. There is a staff summary on today's agenda requesting Committee and Board approval to expedite the installation of PTC kits on the remaining 100 railcars of Metro-North's M-3 fleet.

Acting President Rinaldi reported that substitute bus service will be in place on the Port Jervis Line during the weekend of March 10 and 11 to support ongoing signal work. This new

system will support the installation of PTC on the line, further enhance safety, as well as, provide for more reliable service and additional capacity.

Acting President Rinaldi reported on service reliability. She reported that in January 2018, overall east of Hudson service reliability improved by 2.6% from December 2017. In January 2018, trains operated slightly below goal at 92.4%; the Hudson Line operated at 93.0%, the Harlem Line at 92.4% and the New Haven Line at 91.9%. Metro-North experienced below average cold weather during the holiday period followed by a significant blizzard that adversely impacted service on January 4 and 5, 2018. Service improved during the second half of January and the railroad operated above goal during the first half of February 2018. In January 2018, west of Hudson service operated at 90.7%; the Pascack Valley Line operated at 92.9% and the Port Jervis Line, which was adversely impacted by winter weather and related equipment failures, operated at 87.6%. In January 2018, fleet availability was marginal with a consist compliance below goal at 98.2% as a result of low car availability and service disruptions. The fleet Mean Distance Between Failures in December 2017 operated below goal at 141,990 miles; the year-end fleet Mean Distance Between Failures was slightly below goal at 193,883. In December 2017, M-3, M-7 and M-8 cars experienced a higher number of door, brake and pantograph failures. Equipment performance has improved during February 2018.

Metro-North held its first service meeting of 2018 with New Jersey Transit executives and held its last meeting with Robert Lavell who is retiring at the end of February 2018. Acting President Rinaldi wished him a well-deserved and happy retirement, citing his significant positive contributions to the railroad industry. Metro-North continues to express its concerns about the availability of equipment and crews that has plagued New Jersey Transit's entire system, resulting in trains being cancelled and combined, including those on Metro-North's west of Hudson service. Acting President Rinaldi stated that the meeting was productive. Metro-North will continue to work with New Jersey Transit and its new leadership team as they look to improve performance.

Acting President Rinaldi reported that the 2018 Saint Patrick's Day parade will be held on Saturday, March 17. Metro-North's service plan is designed to accommodate the expected surge in customers travelling to New York City. In addition to Metro-North's regular weekend schedule, the service plan will include three extra inbound Hudson Line trains, with tickets to be collected prior to boarding at Poughkeepsie, New Hamburg and Beacon Stations due to projected high parade ridership. Metro-North will also operate two extra inbound Harlem Line trains and two additional inbound New Haven Line trains. Metro-North will also operate a total of nine additional outbound trains, basically mirroring the extra a.m. inbound service. Metro-North also plans to have New Jersey Transit operate an extra Port Jervis Line train and lengthen consists on both the Port Jervis and Pascack Valley Lines. An alcohol ban will be in effect all day on trains, platforms and at stations to maintain orderly travel for customers and MTA Police will provide their support at key stations on all lines. Metro-North thanks the MTA Police Department for its continued support and coordination on this effort. A communication plan is being developed that will encourage customers to buy tickets in advance by using the MTA eTix app which allows customers to buy tickets on their mobile device – anytime, anywhere.

Acting President Rinaldi reported that in January 2018, customer complaints were 9% lower than December 2017 but 24% higher than in January 2017, primarily due to weather-related challenges, including late and canceled trains; heat, bathroom and car cleanliness issues, as well as, snow and ice removal at stations.

Acting President Rinaldi announced an agreement with Dutchess County regarding the portion of the Beacon Line between the City of Beacon, New York and Fishkill, New York. The agreement provides the County with the exclusive right to explore the feasibility of operating a shuttle and adding a trail within the right of way for pedestrian use. The existing rail would be preserved for future use. Metro-North looks forward to continuing to collaborate with the County and key stakeholders on this effort and is pleased to work with Dutchess County on a project that has the potential to foster greater economic growth for the region. Acting President Rinaldi stated that whenever possible, the railroad strives to find new and innovative ways to enhance the communities it serves, and this memorandum of understanding with the County is one such example. Metro-North will be constructing a rail trail on the remainder of the Beacon Line between Hopewell Junction, New York and Brewster, New York.

Acting President Rinaldi noted that the railroad is installing a new signal system on the Port Jervis Line. This modernization project will require a reconfiguration of the Port Jervis Station. Metro-North is in the early planning stages to build a new high-level island platform that would be situated between the two main line tracks. The platform would be fully accessible with a walkway and ramp that will be compliant with the Americans with Disabilities Act (ADA). The project, estimated to be completed by the end of 2020, is expected to cost \$4 million. Metro-North is pleased to partner with State Senator John Bonacic on this important accessibility project. The funding being secured by the Senator will enable Metro-North to make improvements at the station that will allow mobility-impaired residents to conveniently access train service for the first time. Acting President Rinaldi thanked Senator Bonacic for his continued support and commitment to fund projects that help the railroad to improve its facilities and the service it provides. As a short-term measure to improve accessibility at the current station location, Metro-North will install a temporary mini high-level platform and ADA-compliant ramp by June 2018. Acting President Rinaldi recognizes Chair Metzger for her tireless advocacy on behalf of Orange County and the local advocates who have been championing accessibility improvements at Port Jervis Station.

Board member Glucksman stated that the Rockland express train has only three cars instead of four leading to many standees. Mr. Glucksman stated that he is happy to see the addition of the report regarding trains delayed by five or more minutes. However, he believes that there should be a different statistic for west of Hudson service as fewer trains are operated in that corridor.

The details of the President's Report are contained in the video recording of the meeting produced by the MTA and maintained in the MTA records, which recording includes Board member comments regarding the President's report which recording includes Board member Glucksman's comments regarding west of Hudson service.

### **MTA METRO-NORTH RAILROAD SAFETY REPORT**

Mr. Vonashek reported that the customer accident rate in 2017 was nearly 39% lower than in 2016 and the employee lost time injury rate was nearly unchanged. He reported that Metro-North's community outreach program, TRACKS, reached over 7,500 individuals in December 2017. The program reached just over 79,000 in 2017, 4,000 above the 2017 goal of 75,000. The next Safety Focus Day is Tuesday, March 6, 2018 and will focus on the areas with the highest rate of injuries – slip, trip, falls and overexertion.

The details of Mr. Vonashek's report are contained in the safety report filed with the records of this meeting and the video recording of the meeting produced by the MTA and maintained in the MTA records.

### **MTA POLICE DEPARTMENT REPORT**

Chief Monaghan reported that 11 canines graduated from the training facility in Stormville, New York on January 31, 2018. In addition to MTAPD canines, canines from the Peekskill Police Department, Poughkeepsie Police Department and the United States Park Police were also trained. All canines are named after a fallen member of law enforcement, the fire department or the military.

Chief Monaghan reported that on February 13, a 17-year-old with autism was missing from a group outing in Malverne. Throughout the night, members of the community, local and county police departments and the MTAPD searched for the teen. A member of the MTAPD Canine Unit, Officer Doug Joseph, found the in a backyard suffering from hyperthermia but otherwise fine. Chief McGrann congratulated all who worked to find the missing teen.

Chief Monaghan reported that the newly formed Homeless Assistance Unit comprised of a lieutenant, sergeant and seven officers made almost 1,000 contacts with homeless individuals in January 2018; 33 individuals accepted services from the Bowery Residents' Committee (BRC).

Chief Monaghan reported that, while there was a record low number of crimes committed in the year 2017, crime spiked in the month of January 2018 due to an increase in grand larcenies. In January 2018, systemwide the total number of major felonies increased by 13 versus January 2017, 30 versus 17. Systemwide in January 2018, grand larcenies increased by 10 versus the comparable period of 2017, 17 versus 7. Of the 17 grand larcenies, 15 were related to unattended property. Two of the grand larcenies occurred on Long Island Rail Road property and 11 occurred on Metro-North property, six of which were in Grand Central Terminal. The daily crime rate continues to be less than one per day at .97. In January 2018, hate crimes increased by 1 versus January 2017, 5 versus 4, all of which involved criminal mischief – three on the train, one in the waiting room and one by a signal box near the tracks.

The details of Chief Monaghan's report are contained in the MTAPD report filed with the records of this meeting, which recording includes Board member comments regarding the MTAPD report.

### **LONG ISLAND RAIL ROAD and METRO NORTH RAILROAD JOINT INFORMATION ITEM:**

One joint information item was presented to the Committee:

- Status Update on PTC.

Deborah Chin, Long Island Rail Road Executive Director – PTC, on behalf of Long Island Rail Road and Metro-North, presented a report on the status of PTC. She reported on the overall project status; safety layers of Long Island Rail Road and Metro-North's PTC system; 2018 hardware installation projections; project update from October 2017 to January 2018;

common schedule of software/system developments and tests; line segment revenue service; project risks and railroad mitigations; and timeline from February 2018 to December 2018.

Chair Metzger noted that the PTC Task Force has reviewed the information contained in the status update under the auspices of Board member Zuckerman.

Board member Rechler asked that the Board be provided with the PTC updates that are submitted to the Federal Railroad Administration (FRA). He asked whether the railroads believe they will make the deadline for implementation and of the implications for the railroads should they not meet the deadline. Ms. Chin noted that the railroad could be fined \$27,000 per day, per train. Board member Pally noted that the Federal government has not provided any funding for the PTC project, he doubts the FRA will impose fines and is confident the railroads will meet the deadline. Chair Metzger stated that CPOC has been following the PTC project for a number of years. The Board understood the risks associated with implementation and she is confident that the railroads will meet the deadline for implementation.

Acting President Rinaldi noted that the PTC updates convey the challenges the railroads are facing for PTC implementation. She noted that implementation is challenging with risks that the railroads have control over and those they have no control over. The executive branches of the railroads need to identify the risks that are in their control and develop staffing plans and other resources to mitigate those risks. Acting President Rinaldi noted that the PTC reports provide the Committee with information regarding the safety functionalities that are already in place. She noted that PTC is not something that you just turn the switch on at the end of the year without any incremental safety initiatives, such as, Civil Speed Enforcement which protects against overspeed derailments and the Enhanced Employee Safety System that was implemented due to an unfortunate employee fatality. She stated that there are incremental safety improvements being made that have made a tremendous difference in the safety of the railroad.

Acting President Rinaldi noted that the schedule for PTC implementation is very tight and the railroads are working as hard as they can to deliver the project as quickly and safely as possible. PTC is a top priority with PTC meetings occurring on a daily basis. She noted that the railroads met separately with the new FRA administrator and the FRA is pleased with the railroads' progress and has a good understanding of the risks the railroads are facing. With respect to fines, Acting President Rinaldi noted that there are interim milestones and if the railroads meet these milestones but do not fully implement PTC by the end of 2018, the railroad has the ability to apply for additional time and fines will not be imposed. The railroads have a high degree of confidence that they will not face fines at the end of 2018. Chair Metzger noted that the Committee has taken the position that the railroads will be in full PTC compliance.

Mr. Kesich noted that PTC is not an "off the shelf" technology and that operating PTC in a high-density area is a lot more difficult than running it in a low-density area. PTC is a complicated technical problem with a tight schedule for implementation that relies on the meeting of milestones. In response to Board member Moerdler's questions, it was noted that PTC will not stop a train if there is a car stalled in a railroad crossing or if there is another train on the track in front of it. Cab signals and Automatic Train Control (ATC) will stop a train if there is another train on track. The railroad is currently equipped with ATC and has had cab signaling since the 1980's. In response to Board member Glucksman's question it was noted that of the 138 M-3 railcars, Bombardier will be equipping 100 cars with PTC at the Arch Street facility and the other 38 will be equipped by Metro-

North forces at the Harmon and North White Plains facilities. Board member Brown commented on the availability of agency resources.

The details of Ms. Chin's report are contained in the Status Update on PTC filed with the records of this meeting, the video recording of the meeting produced by the MTA and maintained in the MTA records, which recording includes Board members' comments and discussion regarding the information items, and to the minutes of the Long Island Rail Road for questions and comments specific to Long Island Rail Road operations.

### **METRO-NORTH INFORMATION ITEMS:**

Five information items were presented to the Committee:

- MNR Adopted Budget/Financial Plan 2018
- MNR 2017 Annual Operating Results
- MNR 2017 Annual Fleet Maintenance Report
- MNR Diversity-EEO Report – 4th Quarter 2017
- 2018 Spring/Summer Schedule Change

The details of the information items are contained in reports filed with the records of this meeting and in the video recording of the meeting produced by the MTA and maintained in the MTA records.

### **METRO-NORTH PROCUREMENTS:**

Two non-competitive procurements were presented to the Committee:

- Approval to award a five-year non-competitive, negotiated miscellaneous procurement contract in the not-to-exceed amount of \$1,612,725 to SAFT America, Inc. (SAFT) for the purchase of SAFT batteries for MN railcar fleets.
- Approval to award a 10-month non-competitive, negotiated, miscellaneous service agreement in the total not-to-exceed amount of \$4,625,000 to the firm, Bombardier Transportation Inc. for the installation of Positive Train Control and Onboard Camera Kits on the remaining 100 railcars in the Metro-North's M-3 Fleet.

Board member Moerdler noted that SAFT is the original equipment manufacturer. He asked why the railroad did not seek competition. Mr. Muir noted that this is a sole source procurement. He stated that Metro-North canvassed the battery community and all companies declined to bid on the contract. The proposed contract was advertised as a sole source contract, the railroad asked if any company could provide the needed batteries and received no response. Board member Moerdler stated that significant adverse information (SAI) was found against SAFT's parent company. He asked why a monitor was not assigned to the proposed contract. Mr. Gans noted that a French monitor was imposed under the deferred prosecution agreement with the Federal government and the French government. The United States Department of Justice was part of the process and the three-year monitorship was completed. Mr. Gans noted that SAFT itself has no SAI and completed the monitorship. Board member Moerdler advocated for the appointment of a monitor.

Upon motion duly made and seconded, the Committee approved the non-competitive procurements for recommendation to the Board. Board member Moerdler voted in opposition to the proposed contract with SAFT.

The details of the above procurements are contained in staff summaries and reports filed with the records of this meeting and in the video recording of the meeting produced by the MTA and maintained in the MTA records, which recording includes Board member comments and discussion regarding the proposed procurements.

One competitive procurement was presented to the Committee:

- Approval of a contract change order to the firm Sepsa North America, Inc. (Sepsa), in the amount of \$1,207,105, for the fabrication and delivery of 60 M-8 onboard camera kits to be installed by the car builder, Kawasaki Rail Car.

Board member Moerdler asked why the proposed contract with Sepsa is a sole-source contract. Mr. Muir noted that Sepsa is the provider of all the camera equipment installed on the existing 405 M-8 railcars. He noted that the proposed contract is for the installation and integration of camera equipment on the 60 additional railcars scheduled to arrive in September 2019.

Upon motion duly made and seconded, the Committee approved the above competitive procurement for recommendation to the Board. Board member Moerdler voted in opposition to the proposed contract with Sepsa.

The details of the above procurements are contained in staff summaries and reports filed with the records of this meeting and in the video recording of the meeting produced by the MTA and maintained in the MTA records, which recording includes Board member comments and discussion regarding the proposed procurement.

#### **OPERATIONS, FINANCIAL, RIDERSHIP AND CAPITAL PROGRAM REPORTS:**

The details of the Operations, Financial, Ridership and Capital Program Reports are contained in reports filed with the records of the meeting and in the video recording of the meeting produced by the MTA and maintained in the MTA records.

#### **ADJOURNMENT**

Upon motion duly made and seconded, the Committee unanimously voted to adjourn the meeting.

Respectfully submitted,



Linda Montanino  
Assistant Secretary

## 2018 Metro-North Railroad Committee Work Plan

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### I. RECURRING AGENDA ITEMS

#### Responsibility

Approval of Minutes	Committee Chairs & Members
2018 Committee Work Plan	Committee Chairs & Members
President's Report	President/Senior Staff
Safety Report	
MTA Police Report	
Information Items (if any)	
Action Items (if any)	
Procurements	
Agency Reports	Senior Staff
Operations	
Finance	
Ridership	
Capital Program	

### II. SPECIFIC AGENDA ITEMS

#### Responsibility

#### March 2018

Annual Strategic Investments & Planning Studies	Capital Planning
Annual Elevator & Escalator Report	Engineering
Customer Satisfaction Survey Report	Operations Planning & Analysis
PTC Status Report	Engineering

#### April 2018 (Joint meeting with LIRR)

Final Review of 2017 Operating Budget Results	Finance
2017 Annual Ridership Report	Operations Planning & Analysis
Annual Inventory Report	Procurement
Track Program Quarterly Update	Engineering
MTA Homeless Outreach	MTA
LIRR/MNR PTC Project Update	President

#### May 2018

Diversity/EEO Report – 1 <sup>st</sup> Quarter 2018	Diversity and EEO
PTC Status Report	Engineering

#### June 2018 (Joint meeting with LIRR)

LIRR/MNR PTC Project Update	President
Bi-Annual Report on M-9 Procurement	President

#### July 2018

Grand Central Terminal Retail Development	MTA Real Estate
Environmental Audit	Environmental Compliance



Track Program Quarterly Update  
PTC Status Report

Engineering  
Engineering

September 2018

2019 Preliminary Budget (Public Comment)  
2018 Mid-Year Forecast  
Diversity/EEO Report – 2<sup>nd</sup> Quarter 2018  
2018 Fall Schedule Change  
PTC Status Report

Finance  
Finance  
Diversity and EEO  
Operations Planning & Analysis  
Engineering

October 2018 (Joint meeting with LIRR)

2019 Preliminary Budget (Public Comment)  
LIRR/MNR PTC Project Update  
Track Program Quarterly Update  
MTA Homeless Outreach  
Bi-Annual Report on M-9 Procurement

Finance  
President  
Engineering  
MTA  
President

November 2018

Review of Committee Charter  
Holiday Schedule  
PTC Status Report

Committee Chairs & Members  
Operations Planning & Analysis  
Engineering

December 2018 (Joint meeting with LIRR)

2019 Final Proposed Budget  
2019 Proposed Committee Work Plan  
Diversity/EEO Report – 3<sup>rd</sup> Quarter 2018  
LIRR/MNR PTC Project Update

Finance  
Committee Chairs & Members  
Diversity and EEO  
President

January 2019

Approval of 2019 Committee Work Plan  
Track Program Quarterly Update  
PTC Status Report

Committee Chairs & Members  
Engineering  
Engineering

February 2019 (Joint meeting with LIRR)

Adopted Budget/Financial Plan 2019  
2018 Annual Operating Results  
2018 Annual Fleet Maintenance Report  
LIRR/MNR PTC Project Update  
Diversity/EEO Report – 4<sup>th</sup> Quarter 2018  
2019 Spring/Summer Schedule Change

Finance  
Operations  
Operations  
President  
Diversity and EEO  
Operations Planning & Analysis

# METRO-NORTH RAIL ROAD COMMITTEE WORK PLAN

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## DETAILED SUMMARY

### I. RECURRING AGENDA ITEMS

#### **Approval of Minutes**

The Committee Chair will request a motion to approve the minutes of the prior month's meeting.

#### **2018 Work Plan**

The Work Plan will list, by month, the topics scheduled for review. The Committee will be advised if any changes have been made to the plan.

#### **President's Report**

A monthly report will be provided highlighting major accomplishments and progress on key initiatives and performance indicators.

#### **Safety**

A monthly report will be provided highlighting key safety performance statistics and indicators.

#### **Police Activity Report**

MTA Police will highlight the significant police activities incurred during the month reported.

#### **Information Items (if any)**

Materials presented to the Committee for review pertaining to certain agency initiatives and functions.

#### **Action Items (if any)**

Staff summary documents presented to the Board for approval of items affecting business standards and practices.

#### **Procurements**

List of procurement action items requiring Board approval. The Non-Competitive items will be first, followed by the Competitive items and then the Ratifications. The list will include items that need a 2/3 vote of the Board for approval.

#### **Operations**

A monthly report will be provided highlighting key operating and performance statistics and indicators.

#### **Finance**

A monthly report will be provided that compares the Railroad's actual financial performance against its budget and/or forecast both on an accrual and cash basis.

#### **Ridership**

A monthly report will be provided that includes a comparison of actual monthly ticket sales, ridership and revenues with the budget and prior year results.

#### **Capital Program**

A monthly report will be provided highlighting significant capital program accomplishments in the month reported.

## II. SPECIFIC AGENDA ITEMS

### MARCH 2018

#### Annual Strategic Investments & Planning Studies

A comprehensive annual report will be provided to the Committee of the Agency's strategic investments & planning studies that will include fleet, facility, infrastructure, station projects, station access improvements, and environmental and feasibility studies.

#### Annual Elevator/Escalator Report

Annual report to the Committee on system-wide reliability and availability for elevators and escalators throughout the system.

#### Customer Satisfaction Survey Report

The committee will be informed on the results of the 2017 survey distributed to customers on the Hudson, Harlem and New Haven Lines and West of Hudson service.

#### PTC Status Report

A monthly status report will be provided that highlights the accomplishments, schedule, challenges and risks associated with the PTC implementation.

### APRIL 2018 (Joint Meeting with LIRR)

#### Final Review of 2017 Operating Results

A review of the prior year's budget results and their implications for current and future budget performance will be presented to the Committee.

#### 2017 Annual Ridership Report

A report will be presented to the Committee on Metro-North's ridership trends during 2017 based on monthly ticket sales data and the results of train ridership counts conducted by Metro-North.

#### Annual Inventory Report

The Agency will present its annual report on Inventory.

#### Track Program Quarterly Update

A quarterly report will be provided that highlights the progress made on track maintenance work to bring the infrastructure to a state of good repair.

#### MTA Homeless Outreach

MTA Operations Support will provide a bi-annual report on homeless outreach efforts including an update on service providers and placements.

#### LIRR/MNR PTC Project Update

The Committee will be briefed on the status of PTC, including activities to date and the current strategy to meet critical milestones identified in the Rail Safety Improvement Act of 2008. Highlights to include cost of PTC along with operation and implementation risks.

## **MAY 2018**

### Diversity & EEO Report– 1<sup>st</sup> Quarter 2018

A quarterly report to the Committee providing data on key Equal Employment Opportunity (EEO) and Human Resources indicators relating to MNR's EEO and Diversity efforts, such as composition of the agency's workforce, new hires, and discrimination complaints. In alternating quarters, the report will include additional information on diversity initiatives.

### PTC Status Report

A monthly status report will be provided that highlights the accomplishments, schedule, challenges and risks associated with the PTC implementation.

## **JUNE 2018 (Joint Meeting with LIRR)**

### LIRR/MNR PTC Project Update

The Committee will be briefed on the status of PTC, including activities to date and the current strategy to meet critical milestones identified in the Rail Safety Improvement Act of 2008. Highlights to include cost of PTC along with operation and implementation risks.

### Bi-Annual Report on M-9 Procurement

The committee will be briefed on the status of the M-9 procurement, including design, fabrication and delivery status, plus budget and schedule performance.

## **JULY 2018**

### Grand Central Terminal Retail Development

MTA Real Estate will provide an annual report on leasing and construction opportunities and financial and marketing information related to retail development in Grand Central Terminal.

### Environmental Audit Report

The Committee will be briefed on the results of the 2017 environmental audit report which is submitted to NYS Department of Environmental Conservation as required by the Environmental Audit Act, as well as the actions implemented to enhance overall compliance, monitoring and reporting.

### Track Program Quarterly Update

A quarterly report will be provided that highlights the progress made on track maintenance work to bring the infrastructure to a state of good repair.

### PTC Status Report

A monthly status report will be provided that highlights the accomplishments, schedule, challenges and risks associated with the PTC implementation.

## **SEPTEMBER 2018**

### 2019 Preliminary Budget

Public comment will be accepted on the 2019 Budget.

### 2018 Final Mid-Year Forecast

The agency will provide the 2018 Mid-Year Forecast financial information for revenue and expense by month.

#### Diversity & EEO Report– 2<sup>nd</sup> Quarter 2018

A quarterly report to the Committee providing data on key Equal Employment Opportunity (EEO) and Human Resources indicators relating to MNR's EEO and Diversity efforts, such as composition of the agency's workforce, new hires, and discrimination complaints. In alternating quarters, the report will include additional information on diversity initiatives.

#### 2018 Fall Schedule Change

The Committee will be informed of the schedule changes taking effect for train service on the Hudson, Harlem, New Haven, Pascack and Port Jervis lines for the Fall of 2018.

#### PTC Status Report

A monthly status report will be provided that highlights the accomplishments, schedule, challenges and risks associated with the PTC implementation.

### **OCTOBER 2018** (Joint Meeting with LIRR)

#### 2019 Preliminary Budget

Public comment will be accepted on the 2019 Budget.

#### LIRR/MNR PTC Project Update

The Committee will be briefed on the status of PTC, including activities to date and the current strategy to meet critical milestones identified in the Rail Safety Improvement Act of 2008. Highlights to include cost of PTC along with operation and implementation risks.

#### Track Program Quarterly Update

A quarterly report will be provided that highlights the progress made on track maintenance work to bring the infrastructure to a state of good repair.

#### MTA Homeless Outreach

MTA Operations Support will provide a bi-annual report on homeless outreach efforts including an update on service providers and placements.

#### Bi-Annual Report on M-9 Procurement

The committee will be briefed on the status of the M-9 procurement, including design, fabrication and delivery status, plus budget and schedule performance.

### **NOVEMBER 2018**

#### Review of Committee Charter

Annual review and approval of the MNR Committee Charter.

#### Holiday Schedule

The Committee will be informed of Metro-North's service plans for the Thanksgiving and Christmas/New Year's holiday periods.

#### PTC Status Report

A monthly status report will be provided that highlights the accomplishments, schedule, challenges and risks associated with the PTC implementation.

### **DECEMBER 2018** (Joint Meeting with LIRR)

#### 2019 Final Proposed Budget

The Committee will recommend action to the Board on the Final Proposed Budget for 2019.

#### 2019 Proposed Committee Work Plan

The Committee Chair will present a draft Metro-North Committee Work Plan for 2019 that will address initiatives to be reported throughout the year.

#### Diversity & EEO Report– 3<sup>rd</sup> Quarter 2018

A quarterly report to the Committee providing data on key Equal Employment Opportunity (EEO) and Human Resources indicators relating to MNR's EEO and Diversity efforts, such as composition of the agency's workforce, new hires, and discrimination complaints. In alternating quarters, the report will include additional information on diversity initiatives.

#### LIRR/MNR PTC Project Update

The Committee will be briefed on the status of PTC, including activities to date and the current strategy to meet critical milestones identified in the Rail Safety Improvement Act of 2008. Highlights to include cost of PTC along with operation and implementation risks.

### **JANUARY 2019**

#### Approval of 2019 Committee Work Plan

The Committee will approve the Proposed Metro-North Railroad Committee Work Plan for 2019 that will address initiatives to be reported on throughout the year.

#### Track Program Quarterly Update

A quarterly report will be provided that highlights the progress made on track maintenance work to bring the infrastructure to a state of good repair.

#### PTC Status Report

A monthly status report will be provided that highlights the accomplishments, schedule, challenges and risks associated with the PTC implementation.

### **FEBRUARY 2018 (Joint Meeting with LIRR)**

#### Adopted Budget/Financial Plan 2019

The Agency will present its revised 2019 Financial Plan. These plans will reflect the 2019 Adopted Budget and an updated Financial Plan for 2019 reflecting the out-year impact of any changes incorporated into the 2019 Adopted Budget.

#### 2018 Annual Operating Results

A review of the prior year's performance of railroad service will be provided to the Committee.

#### 2018 Annual Fleet Maintenance Report

An annual report will be provided to the Committee on the Agency's fleet maintenance plan to address fleet reliability and availability.

#### LIRR/MNR PTC Project Update

The Committee will be briefed on the status of PTC, including activities to date and the current strategy to meet critical milestones identified in the Rail Safety Improvement Act of 2008. Highlights to include cost of PTC along with operation and implementation risks.

#### Diversity & EEO Report– 4<sup>th</sup> Quarter 2018

A quarterly report to the Committee providing data on key Equal Employment Opportunity (EEO) and Human Resources indicators relating to MNR's EEO and Diversity efforts, such as composition of the agency's workforce, new hires, and discrimination complaints. In alternating quarters, the report will include additional information on diversity initiatives.

#### 2019 Spring/Summer Schedule Change

The Committee will be informed of the schedule changes taking effect for train service on the Hudson, Harlem, New Haven, Pascack and Port Jervis lines during the spring and summer of 2019.



**Metro-North Railroad**

# **Safety Report**



## January 2018 Safety Report

Performance			
Performance Indicator	12-Month Average		
	February 2015 - January 2016	February 2016 - January 2017	February 2017 - January 2018
FRA Reportable Customer Accident Rate per Million Customers	1.84	1.21	0.86
FRA Reportable Employee Lost Time Injury Rate per 200,000 worker hours	2.85	2.97	2.93
Grade Crossing Incidents <sup>1</sup>	3	1	2
Mainline FRA Reportable Train Derailments	2	0	2
Mainline FRA Reportable Train Collisions	0	0	0

<sup>1</sup> Per FRA - Any impact between railroad on-track equipment and a highway user at a highway-rail grade crossing. The term "highway user" includes automobiles, buses, trucks, motorcycles, bicycles, farm vehicles, pedestrians, and all other modes of surface transportation motorized and un-motorized.

Leading Indicators				
Safety Training	2017		2018	
	January	Year to Date	January	Year to Date
First Responders Trained	158	158	44	44
Employee Safety Training Courses	90	90	157	157
Employees Trained	792	792	1,589	1,589
Employee Safety Training Hours	9,555	9,555	18,539	18,539
Customer and Community: Focus on Grade Crossings	2017		2018	
	January	Year to Date	January	Year to Date
Broken Gates	3	3	5	5
MTA Police Details	164	164	91	91
Summons	96	96	27	27
Warnings	4	4	0	0
Community Education and Outreach	3,400	3,400	1,185	1,185
Cars Equipped with Cameras				
	Fleet Size	Total Cars Equipped	% Complete	
Inward / Outward Facing Cab Cameras	956	273	28.56%	
Passenger Compartment Cameras	1,086	270	24.86%	

### Definitions:

**First Responders Trained** - The number of first responders trained by MNR's Emergency Management to assist in crisis events, such as train evacuation.

**Employee Safety Training Courses** - The number of distinct safety-related courses offered, including technical courses that have a safety element. Repeats are excluded so that each course is counted only once.

**Employees Trained** - The number of unique employees that attended one or more of these safety-related courses.

**Employee Safety Training Hours** - The total hours of training completed by employees in all safety-related courses attended.

**MTA Police Detail** - The number of details specifically for the purpose of monitoring behavior at Grade Crossings.

**Summons for Grade Crossing Violation and other Infractions** - The number of violations issued to a motorist for going around a crossing gate or due to behavior that put the motorist at risk (i.e. cell phone use, etc.).

**Warnings** - The number of warnings issued to motorists due to behavior that put the motorist at risk (i.e. cell phone use, etc.).

**Community Education and Outreach** - The number of individuals reached at a TRACKS event. Program began in May 2016.

**Cars Equipped with Cameras** - Number of complete inward/outward and passenger compartment camera installations on rolling stock. Installation began in August 2016.



# Police Report



**METROPOLITAN TRANSPORTATION AUTHORITY**  
**Police Department**  
**Metro North Railroad**

**February 2018 vs. 2017**

	2018	2017	Diff	% Change
Murder	0	0	0	0%
Rape	0	0	0	0%
Robbery	1	1	0	0%
Felony Assault	3	0	3	100%
Burglary	5	2	3	150%
Grand Larceny	5	11	-6	-55%
Grand Larceny Auto	0	0	0	0%
Total Major Felonies	14	14	0	0%

**Year to Date 2018 vs. 2017**

	2018	2017	Diff	% Change
Murder	0	0	0	0%
Rape	0	0	0	0%
Robbery	3	2	1	50%
Felony Assault	5	0	5	100%
Burglary	8	4	4	100%
Grand Larceny	16	14	2	14%
Grand Larceny Auto	0	1	-1	-100%
Total Major Felonies	32	21	11	52%



# **METROPOLITAN TRANSPORTATION AUTHORITY**

## **Police Department**

### **System Wide**

#### **February 2018 vs. 2017**

	<b>2018</b>	<b>2017</b>	<b>Diff</b>	<b>% Change</b>
<b>Murder</b>	0	0	0	0%
<b>Rape</b>	0	0	0	0%
<b>Robbery</b>	1	4	-3	-75%
<b>Felony Assault</b>	5	3	2	67%
<b>Burglary</b>	5	2	3	150%
<b>Grand Larceny</b>	7	17	-10	-59%
<b>Grand Larceny Auto</b>	0	0	0	0%
<b>Total Major Felonies</b>	18	26	-8	-31%

#### **Year to Date 2018 vs. 2017**

	<b>2018</b>	<b>2017</b>	<b>Diff</b>	<b>% Change</b>
<b>Murder</b>	0	0	0	0%
<b>Rape</b>	0	0	0	0%
<b>Robbery</b>	6	7	-1	-14%
<b>Felony Assault</b>	10	5	5	100%
<b>Burglary</b>	8	5	3	60%
<b>Grand Larceny</b>	25	24	1	4%
<b>Grand Larceny Auto</b>	0	2	-2	-100%
<b>Total Major Felonies</b>	49	43	6	14%



# MTA Police Department Arrest Summary: Department Totals

1/1/2018 to 2/28/2018

Arrest Classification	Total Arrests	
	2018	2017
Robbery	9	4
Felony Assault	10	8
Burglary	8	1
Grand Larceny	6	3
Aggravated Harassment	1	0
Aggravated Unlicensed Operator	5	3
Assault-Misdemeanor	15	12
Breach of Peace	1	1
Criminal Contempt	2	3
Criminal Mischief	9	5
Criminal Possession Stolen Property	2	2
Criminal Tampering	0	3
Criminal Trespass	8	5
Disorderly Conduct	1	0
Drug Offenses	5	13
DUI Offenses	3	2
Forgery	11	4
Fraud	1	0
Graffiti	2	8
Make Terrorist Threat	2	0
Menacing	3	3
Obstruct Government	0	4
Petit Larceny	32	28
Public Lewdness	4	3
Reckless Endangerment	0	2
Resisting Arrest	5	4
Sex Offenses	3	2
Stalking	0	1
Theft of Services	35	34
Warrant Arrest	30	9
Weapons Offenses	3	1
<b>Total Arrests</b>	<b>216</b>	<b>168</b>

# INDEX CRIME REPORT

## Per Day Average

### February 2018

	Systemwide	LIRR	MNRR	SIRT
<b>Murder</b>	0	0	0	0
<b>Rape</b>	0	0	0	0
<b>Robbery</b>	1	0	1	0
<b>Fel. Assault</b>	5	2	3	0
<b>Burglary</b>	5	0	5	0
<b>Grand Larceny</b>	7	2	5	0
<b>GLA</b>	0	0	0	0
<b>Total</b>	18	4	14	0
<b>Crimes Per Day</b>	0.64	0.14	0.50	0.00

**Metropolitan Transportation Authority  
Police Department**

**Hate Crimes Report (January-February 2018)**

<b>Motivation</b>	<b>2018</b>	<b>2017</b>	<b>Diff</b>	<b>% Change</b>
ASIAN	0	0	0	0%
BLACK	2	0	2	0%
ETHNIC	0	0	0	0%
GENDER	0	0	0	0%
HISPANIC	0	0	0	0%
MUSLIM	0	1	-1	-100%
OTHER	1	0	1	0%
ANTI-SEMITIC	2	8	-6	-75%
SEXUAL ORIENTATION	0	0	0	0%
WHITE	0	0	0	0%
<b>TOTAL</b>	<b>5</b>	<b>9</b>	<b>-4</b>	<b>-44%</b>

<b>CRIME NAME</b>	<b>2018</b>	<b>2017</b>	<b>Diff</b>	<b>% Change</b>
Agg. Harassment # 1	0	0	0	0%
Agg. Harassment # 2	0	0	0	0%
Felony Assault	0	0	0	0%
Misd. Assault	0	1	-1	-100%
Criminal Mischief # 3	0	0	0	0%
Criminal Mischief # 4	5	8	-3	-38%
Grand Larceny # 4	0	0	0	0%
Menacing # 2	0	0	0	0%
Robbery # 2	0	0	0	0%
<b>Total</b>	<b>5</b>	<b>9</b>	<b>-4</b>	<b>-44%</b>



**Metro-North Railroad**

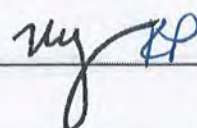
# **Action Item**

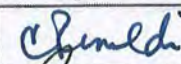
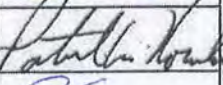

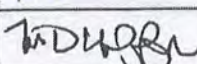




## Staff Summary

Page 1 of 2

<b>Subject</b> Extension of Refund Period of Railroad Tickets Pursuant to Newly Adopted Public Authorities Law Section 1266-k	<b>Date</b> March 19, 2018
<b>Department</b> MNR and LIRR Finance Departments	<b>Vendor Name</b>
<b>Department Head Name</b> Kim Porcelain – MNR/Mark Young - LIRR	<b>Contract Number</b>
<b>Department Head Signature</b> 	<b>Contract Manager Name</b>
<b>Project Manager Name</b>	<b>Table of Contents Ref#</b>

Board Action						Internal Approvals			
Order	To	Date	Approval	Info	Other	Order	Approval	Date	Approval
1	MNR Committee	3/19	X			2	MNR President	3/12/18	
2	LIRR Committee	3/19	X			4	LIRR President	3/9/18	
3	Finance Committee	3/19	X			1	MNR General Counsel	3/9/18	
4	MTA Board	3/21	X			3	LIRR General Counsel	3/9/18	

**Purpose and Recommendation:** To obtain approval to revise fare policy applicable to the MTA Commuter Railroads (Metro-North and LIRR) to extend the refund period for unused portions of one-way, round trip and ten trip tickets for an additional two year period, to bring the Railroads into compliance with a recent amendment to the Public Authorities Law.

**Discussion:** In December, 2017, the new PAL §1266-k became effective, which provides:

Notwithstanding any other provision of law to the contrary, the authority shall, within ninety days of the effective date of this section, establish an expired fare transfer policy that may be amended from time to time. *Such policy shall provide any person who purchases a fare the ability to transfer any remaining balance for two years after such fare is deemed expired.*

This law expires and is deemed repealed on December 31, 2022.

NYC Transit customers currently have the ability to transfer remaining balances in a manner that is compliant with the statute. However, the Railroads' ticket media do not allow for a similar fare balance transfer mechanism. In order to best comply with the requirements of the statute, the Railroads are recommending that fare policy be amended to extend the period during which customers can obtain refunds for unused tickets other than time-based tickets (*i.e.*, weeklies and monthlies).

Currently, Commuter Railroad one-ways and round trips are valid for 60 days, and the unused portions of such tickets are refundable for the same 60 day period. Ten trips are valid and refundable for 6 months. In order to best comply with the requirements of the law, Metro-North and LIRR recommend that the period during which a refund can be obtained be extended for an additional two years. Miscellaneous other ticket types (*e.g.*, group sales) would be similarly extended. The existing administrative fee of \$10 per transaction (not per ticket) will be applied to all refunds.



## Staff Summary

Page 2 of 2

The extended refund period would not be applicable to time-based tickets because in those cases the customer purchased unlimited rides for a set period of time, and there is no way to assess unused value at the end of the week or month. This is consistent with NYC Transit's policy with respect to their time-based instruments. The Railroads would continue to process refund requests for monthlies and weeklies made during their validity period as per existing policy.

With respect to mobile tickets, there needs to be further investigation with the Mobile Ticketing vendor about the feasibility of programming a Self-Service Refund of Expired Tickets (not already activated) and/or Exchange feature. The Railroads will seek a permanent solution for this issue with the vendor.

Upon approval of this policy change, the Railroads will act diligently to implement the new policy and inform customers of the change.

**Alternatives:** The Railroads must comply as best as possible with the new statutory requirements. The Railroads do not have the facilities or systems in place to handle this requirement in an alternative fashion.

**Budget Impact:** There will be an impact to revenues which is difficult to quantify at this time, but it is expected to be minimal. It is unknown how many unused, expired tickets are retained by customers beyond the current refund periods.



**Metro-North Railroad**

# **Information Items**





# Metro-North Railroad

## STRATEGIC INVESTMENTS AND PLANNING STUDIES

### STATUS UPDATE

*March 2018*

### METRO-NORTH COMMITTEE



# **TABLE OF CONTENTS**

## **I.INTRODUCTION**

## **II.MANAGEMENT INITIATIVES**

- Safety
- Track Infrastructure Rehabilitation
- Station Rehabilitation Program
- Customer Service Improvements
- Mobile Ticketing
- Station Leasing Program
- Transit Oriented Development
- Station Area Planning and Parking Initiatives
- Rail Trail Initiatives
- Connecting Services
- Enterprise Asset Management
- Geographic Information System

## **III.STRATEGIC CAPITAL INVESTMENTS**

- Rolling Stock
- Grand Central Terminal
- Enhanced Stations
- Customer Communications Improvements
- New Fare Payment System
- Outlying Stations Improvements
- Structures Improvements
- Signal System and Power Investments
- Shops and Yards Investments
- Energy Savings
- Superstorm Sandy

## **IV.PLANNING STUDIES**

- West of Hudson Regional Transit Access Study
- Port Jervis Line Capacity Improvements Project
- Penn Station Access (PSA)

## **I. INTRODUCTION**

Strategic investments and management initiatives play a significant role in improving safety, service and reliability throughout Metro-North Railroad. To facilitate these efforts and provide a framework for continual improvement, in June 2016 Metro-North launched its 2016-2020 Strategic Plan entitled “Our Railroad, Our Vision, Our Future”. This company-wide, collaborative effort set goals driven by safety, integrity, and innovation, focusing on three Strategic Priorities: Our People, Our Customers, and Our Infrastructure. Our Mission and Vision to be a safe, reliable, efficient railroad providing regional mobility and excellent service to our customers through an engaged and empowered workforce reinforces a sense of focus, unified purpose and pride at Metro-North. Several strategic initiatives have been implemented in 2017 in line with the plan goals and objectives with more efforts under development to keep the Strategic Plan dynamic and relevant. Among the many actions already completed, the President’s Safety Excellence Award program was re-established for Our People to recognize outstanding employee safety efforts, a new Station Terminal Auxiliary Response (STAR) program ensures that Our Customers are safe and well-informed during service disruptions and other events, and a new, innovative Automated Track Geometry Information System (ATGIS) provides real-time track inspection data for Our Infrastructure, enabling improved response time to issues on the right-of-way.

In July 2017, the 2015-2019 MTA Capital Program Plan Amendment received final approval from the Capital Program Review Board. Metro-North’s \$2.4 billion Capital Program addresses critical priority projects and demonstrates the agency’s ongoing commitment to promoting a culture of safety while maintaining and enhancing reliability and customer service. These investments fund the most essential components - rolling stock, stations, track, communications, signals, power, and shops and yards. More than 80 percent of Metro-North’s program is slated for projects that continue to bring assets to a state of good repair or protect investments that have already been made, such as the final phases of the replacement of the Harmon Shop electric repair facility, initial stages of the multi-program effort to replace the GCT Trainshed and the ongoing replacement of our vast network of bridge structures throughout the system. Metro-North’s program also includes targeted service improvements such as better customer information technology to provide real-time train information and Wi-Fi capability at stations, and investments that support the MTA’s New Fare Payment System Initiative. The 2015-2019 Capital Program also allows Metro-North to complete the installation of the Positive Train Control (PTC) system.

Several planning efforts underway in the Capital Program will help Metro-North prepare for the future. The ongoing Maintenance of Equipment/Maintenance of Way Master Plan study will define train maintenance and storage needs for the future, as well as needs for our maintenance of way forces and materials storage. Preliminary work for a future Operations Control Center will define the requirements and begin design. Metro-North has also begun planning and design efforts in the 2015-2019 Capital Program to improve capacity on the Port Jervis Line west of the Hudson River. All of these planning efforts will inform Metro-North’s 2020-2039 Twenty Year Needs Assessment to be completed in 2018, leading to development of the 2020-2024 Capital Program.

Penn Station Access will also open a new link for Metro-North’s New Haven Line trains directly into Penn Station, New York (PSNY), constructing four new passenger stations in the Bronx, along with new interlockings and other infrastructure along Amtrak’s Hell Gate Line necessary to operate this service.

Metro-North Railroad conducted its annual Customer Satisfaction Survey on the three East of Hudson Lines in June 2017. Results were comparable to 2016, with 89% of customers reporting themselves as satisfied with the railroad overall, compared with 90% in the previous year. Three out of 10 customers were very satisfied with Metro-North's performance in 2017.

The survey asks customers to rate their satisfaction with Metro-North on a variety of characteristics in seven major categories of service. The 2017 results remained largely the same as 2016 with a point or two variance in five of the seven categories. The Courtesy and Responsiveness of Employees and Overall Communications categories remained the same.

The railroad's frontline employees have perennially been viewed extremely favorably by customers. In 2017, 95% of riders were satisfied with their performance, matching the 2016 results, including 52% of riders who were very satisfied with frontline employees.

Overall Communications was positively rated by 86% of customers, the same percentage as in 2016 and at 95% in 2017, Grand Central Terminal continues to satisfy virtually all of the railroad's customers since being revitalized.

On-Time Performance, a key driver of customer satisfaction, declined to 78% satisfied from 80% the year before. Overall Train Service satisfied 87% of customers, versus 89% in 2016. In the category of Overall Train Schedules, satisfaction in 2017 was a single point below that of 2016, (85% versus 86%).

Looking at the survey results by line, satisfaction with the railroad among Hudson Line customers increased in 2017 to 93% from 92% the prior year. Both the Harlem Line (90% satisfied) and the New Haven Line (85% satisfied) were two points lower than reported in 2016. Satisfaction among Reverse Peak customers was 6 points lower than a year ago, at 88%. West-of-Hudson satisfaction among AM Peak customers dropped 2 points to 81%.

## **II. MANAGEMENT INITIATIVES**

### **SAFETY**

The following is a summary status of on-going safety initiatives:

<b>METRO-NORTH SAFETY INITIATIVES</b>	
<b>Emergency Management and Fire &amp; Life Safety</b>	Provided training to public first responders (fire, police, and EMS) in a classroom and field environment. The program teaches first responders how to respond to incidents involving the railroad and provides guidance on safe operations around railroad equipment and the right-of-way. In addition, field training is provided to teach first responders about Metro-North's equipment and emergency evacuation procedures. In 2017, 81 classes were held, training a total of 1,450 first responders.
	Conducted yearly full-scale "Emergency Preparedness Simulation" to provide first responders with the training and hands-on experience needed to manage rail-based incidents and emergencies. This year's simulation was

	an active shooter exercise, and took place on October 28, 2017 in Grand Central Terminal.
	Developed a contract for inspection services of fire protection systems that increases the level of service and qualifications of contractors. Secured a 3-year contract approximately \$530,000 below the MNR estimate (a 36% savings).
	Eight standpipes tested and commissioned; New egress point constructed at 98th street; Emergency Exit Hatches painted; 380 lights repaired or replaced.
<b>Ensuring Customer Safety: Safety Education and Community Outreach</b>	Since the inception of TRACKS – Together Railroads and Communities Keeping Safe – in June of 2016, Metro-North has reached over 134,000 individuals. The railroad will continue its effort by visiting every station and public grade crossing throughout the Metro-North territory.
	Coordination with DOT to mark and stripe the roadways at Virginia Rd, Lakeview Ave, and Roaring Brook Rd to prevent drivers from stopping on or too close to the grade crossings. New signage has been added at each of the grade crossings as well. In addition, cameras will be installed to monitor driver behavior and observe the effectiveness of the program.
	Continued issuance of seasonal “Best Foot Forward” Safety Campaign to promote safe customer footing and handling on trains, platforms and stairs in inclement weather to reduce customer slip, trip, and fall injuries.
	Weekly safety tweets developed in conjunction with Corporate & Public Affairs highlighting a new safety message to 40,000-plus Twitter followers.
<b>Ensuring Employee Safety</b>	Metro-North became the first commuter railroad in the country to fully implement the confidential “close call” reporting system (C3RS) with the transportation, mechanical and engineering departments. C3RS encourages workers to report any potential safety hazard or breach of procedures they may observe by providing them with a convenient, non-confrontational, non-punitive and anonymous way to do so. This is achieved through a partnership between the FRA, NASA, Metro-North, and participating labor organizations. Each incident report goes directly to NASA via an online form. NASA analyzes the details, and “scrubs clean” any identifying elements before presenting it to a Peer Review Team consisting of local representatives from the FRA, MNR and labor unions. The Transportation Department went live in April 2015; Engineering and Mechanical Departments went live on April 18, 2016. Metro-North has had over 2,600 reports since its inception.
	Conducted bi-annual Safety Clean-Up Days at GCT, Brewster, North White Plains, Croton-Harmon, Poughkeepsie, New Haven, Stamford and Springdale yards to remove debris and clutter.
	Conducted quarterly employee Safety Focus Day events to bring attention to safe work practices, the impact of seasonal conditions on work environments, employee fatigue, grade crossing safety, fire safety, and security and trespasser awareness.



	These events afford additional opportunities for all employees to provide feedback and safety concerns. Corrective actions are developed and this information is tracked to completion.
	Revised the General Safety Instructions to be reissued as the Safety Rules; a comprehensive rule book for all Metro-North Employees.
	Finalization of six operating procedures; Respiratory Protection, Bloodborne Pathogen, Fall Protection, Powered Industrial Trucks (PIT), Lead Abatement Management, and Asbestos Management.
	<p>Metro-North conducted an Obstructive Sleep Apnea (OSA) pilot program of its Locomotive Engineers (LOE) beginning in 2015:</p> <ul style="list-style-type: none"> <li>• Completion of all 434 LOE screenings. Approximately 51 LOE were diagnosed through the pilot program. <ul style="list-style-type: none"> <li>○ Currently there are 89 LOE being monitored for compliance with treatment for diagnosed OSA.</li> </ul> </li> <li>• LOE's are screened for OSA as part of their pre-employment physical as well as their annual physical.</li> </ul> <p>The OSA program has been expanded to also include all Conductors as part of an All-Agency initiative. The screening and referral process of Conductors began in June 2017.</p> <ul style="list-style-type: none"> <li>• Currently 252 conductors have been screened and 29 are being monitored for compliance with treatment.</li> </ul>
	Metro-North has partnered with the FRA, and its contractor (Syntek), to review past accident/incident data and its relationship to fatigue. The previous 10-day work history for all 2015 employee injuries within the Maintenance of Way Department is being reviewed by Syntek to determine the relationship between hours/days worked and accidents/incidents. FRA expects to have preliminary results by mid-2018.
<b>Safety Excellence Awards</b>	Development of the Safety Excellence Awards program to recognize individual employees, departments, groups and/or districts that have made an exemplary effort to improve Metro-North's safety, reliability and efficiency

<b>FEDERAL RAILROAD ADMINISTRATION</b>	
<b>Grade Crossing Upgrade</b>	<p>The FRA awarded \$5 million to New York State DOT, as part of a \$25 million nationwide grant package to upgrade the safety at grade crossings. The grant focused on increased safety at railroad crossings, train stations, and tracks across the country. Metro-North work includes the following:</p> <ul style="list-style-type: none"> <li>• \$1.34 million to add highway traffic signal preemption to seven grade crossings on Metro-North's Harlem and Port Jervis Lines in New York to activate the traffic signals at seven (7) intersections and allow queued traffic to exit onto the highway prior to the activation of the railroad grade crossing warning systems.</li> <li>• \$1.90 million to fund installing upgrades to three grade crossings to mitigate hazardous conditions between highway and rail traffic. The</li> </ul>

	<p>Metro-North Railroad project includes upgrading the roadway, pavement markings, and signage at a heavily used grade crossing in North White Plains.</p> <ul style="list-style-type: none"> <li>• \$1.91 million to install video surveillance systems to record grade crossing movements at 43 identified grade crossings within Metro-North territory in New York to investigate specific incidents and analyze crossing/traffic operations for targeted modifications to improve safety</li> </ul>
<b>Positive Train Control (PTC)</b>	<p>Positive Train Control (PTC) components installation is on-going. Systemwide implementation of Civil Speed Enforcement (which prevents overspeed derailments) functions was completed in the first quarter of 2018. Other PTC functions are under testing on pilot lines. PTC Safety Plan, to be submitted to FRA for System Certification, is 68% complete.</p> <p>MNR is progressing to comply with the FRA deadline of December 31, 2018.</p>
<b>System Safety Program Plan (SSPP)</b>	<p>Revision and finalization of the System Safety Program Plan to meet FRA requirements to be used as a guide to promote a more proactive approach to safety system wide.</p>

<b>NATIONAL TRANSPORTATION SAFETY BOARD</b>	
<b>NTSB Recommendations</b>	<p>Metro-North has progressed National Transportation Safety Board (NTSB) recommendations, while working with both the NTSB and other MTA agencies to ensure the coordination of industry best and safe practices.</p>
<b>Rolling Stock Cameras Forward, Cab, Passenger</b>	<p>Installation of crash and fire-protected inward and outward-facing audio and image recorders in our M7 and M8 fleet began in August 2017. The installation is scheduled to conclude for CAB units in 2018 and Passenger units in May 2019. To date, 468 cars have been fitted with cameras; 234 Cab units and 234 passenger units. Cameras have 30 days of continuous recording.</p>

## **TRACK INFRASTRUCTURE REHABILITATION**

Metro-North has continued the extensive system-wide track reconstruction effort that has rebuilt miles of the railroad in the last three years, delivering smoother, safer and more reliable service to customers. From 2014 to 2017, Metro-North has replaced 160,190 ties, installed 35.1 miles of continuous welded rail, rebuilt 162 switches, renewed and/or upgraded 64 railroad crossings, and performed 6,996 welds on joints that connect rails with one another.

In addition to visual track inspections, which are conducted twice a week by inspectors who occupy the tracks being inspected, the track reconstruction and renewal efforts have been guided by an industry-leading spectrum of detailed track inspections, which can detect issues not seen by visual inspection. The range of high-tech inspections include:

- **Track Geometry:** To measure a variety of geometric parameters of track, including the position, curvature, alignment, smoothness, and the cross level of the two running rails, track geometry cars operated by the Federal Railroad Administration (FRA) and ENSCO system are utilized. ENSCO's measuring system is mounted to Metro-North equipment. The cars use a variety of sensors, measuring systems, and data management systems to create a profile of the track being inspected.
- **Internal Metal Defects and Fatigue:** To detect flaws, defects and metal fatigue inside the steel running rails that trains roll over, Metro-North utilizes Sperry Rail Service, which operates a specialized car over rails and measures them with ultrasonic and induction test equipment.
- **Mismatched Rail Ends:** To identify any instances where the end of a rail does not match up within FRA limits with the beginning of the following rail, Metro-North uses Georgetown Rail Equipment Company's Aurora System, which makes rail measurements of joints that are accurate to within two-hundredths of an inch. Georgetown also measures rail seat deterioration in concrete ties, grades wood ties, and produces reports on rail fasteners and anchors.
- **New Equipment:** Metro-North has purchased and installed Automated Geometry Inspection Equipment on three of our revenue train cars so that continuous track geometry measurements will be made as trains carry passengers around the system. This equipment has been running for 8 months and is expected to be fully operational by mid-2018. In addition, Metro-North is in the midst of the purchase of a state-of-the-art self-propelled track inspection car that will start commissioning tests on Metro-North property in 2018. The inspection car will provide the ability to conduct tests at any time system wide. A variety of systems will be on the car that will inspect running rail, third rail, catenary, measure clearances, perform lateral track strength testing, and provide images of the right of way.

#### **STATION REHABILITATION PROGRAM** (formerly the Station Enhancement Program)

The Station Rehabilitation Program continued for the eighth year in 2017. The program provides a cyclical approach to address all station elements and reduce future ongoing maintenance costs. Types of work in this program includes painting structures, changing recycling bins, replacing Customer Information & Passenger Information Displays, replacing signage at station (Directional & Station ID Signs), full replacement of protective film on glass windows (on shelters & overpasses) that prevent scratches from ruining the glass, cleaning the station right-of-way (track), repairing damaged edge boards, installing bird netting (as needed), replacing concrete benches with more comfortable wire ones, repairing tactile warning strip, fixing shelter heaters, installing energy-efficient lighting, and power washing all station exterior surfaces, windows and overpasses.

The majority of the 2017 Station Rehabilitation Program efforts were concentrated on the Harlem Line.

- **Bronxville**  
Significant needs were identified and addressed at the Bronxville station. With a majority of the station and underpasses requiring lead abatement, extensive work was completed including:
  - Painting of the platform canopy steel and guardrails
  - Painting of the underpasses and walkway
  - Concrete and tactile repairs on platform edges
  - Replacement of platform lighting with new LED fixtures
  - Installation of new signage and recycling centers

- Fleetwood
  - Began replacement of platform lighting with new LED fixtures and installed new signage
- Tuckahoe
  - Began replacement of platform lighting with new LED fixtures

In addition to the work on the Harlem Line, a program was initiated in 2017 to replace all station recycling centers. The campaign will be completed over the next 3 years. By the end of 2017, over 150 centers had already been replaced.

## **CUSTOMER SERVICE IMPROVEMENTS**

Metro-North Customer Service accomplishments and initiatives included:

- **Real-time Cellular LCD:**
  - Monitors/Kiosks installed at an additional nine stations which utilize the in-house developed Train Time System to display the next nine trains at each station with real-time status, track information and stops for each train.
- **Train Time Mobile App:**
  - The Train Time Mobile App for Smartphones provides customers with scheduled train departure and arrival information, track information, real-time train status, service alerts, and service advisories. The app also has info on stations, fares, and connecting services.

## **MOBILE TICKETING (ETIX)**

Project to implement a new ticketing system for Metro-North and LIRR, giving railroad customers the ability to purchase and display digital tickets using their mobile devices.

- Phased rollout of mobile ticketing was completed August 2016
  - The original expectation was that Metro-North would realize approximately 5% of sales through use of the app after one year. Actual sales far exceeded these expectations with 20% of sales generated through the app in the first year. Since its inception, a total of over 7 million tickets have been sold using the app generating over \$207 million in sales for Metro-North.
  - NYCT is planning a limited employee pilot to test joint tickets for those who use both the railroad and the subway to use the mobile app. Pilot testing is anticipated to begin in the first quarter of 2018.

## **STATION LEASING PROGRAM**

To reduce railroad costs for station building operations and maintenance and to increase non-fare revenue system-wide, station leasing efforts are continuing. Current status of the Station Leasing program is:

Stations with existing leases:

- Port Chester
- Hastings-on-Hudson
- Tuckahoe
- Hartsdale

- Mt. Kisco
- Brewster
- Pelham
- Pearl River
- Spring Valley
- Peekskill
- Bedford

Stations to be offered by RFP in 2018:

- Bronxville
- Hastings-on-Hudson (existing lease expiring in 2018)
- Rye
- Scarsdale

Stations leases in negotiations following an RFP:

- Tarrytown

## **TRANSIT ORIENTED DEVELOPMENT (TOD)**

Metro-North continues to work with relevant parties such as local communities and developers to encourage TOD even at stations where we have limited or no property. Coordination of investments and operations with local communities who plan and implement TODs benefit Metro-North, as the proximity of these projects to our service promote increased rail ridership.

### **Harrison TOD**

- Metro-North's first Railroad led TOD primarily on Railroad controlled land was approved in 2014 by the MTA Board and will incorporate residential, retail and expanded parking adjacent to the Harrison station.
- Approval for MTA Real Estate to enter into a Joint Development Agreement was received by the MTA Board and executed with AvalonBay Communities, Inc. (the developer) in March 2015.
- The Concept design was approved by the Town/Village of Harrison and Metro-North in late 2015.
- In December 2015 the developer submitted the Petition for Rezoning to the Town/Village of Harrison, initiating the SEQRA and land use approval process.
- Metro-North is continuing negotiations of the Land Disposition and Development Agreement (LDDA).
- The Town/Village of Harrison approved the Site Plan in January 2018.
- Metro-North has approved the 60% design. Submittal of the 90% design from the developer is pending as of January, 2018.
- The Developer anticipates breaking ground in 2018.

### **Poughkeepsie TOD**

- Metro-North, the City of Poughkeepsie and Dutchess County are working jointly towards a potential TOD in the Station area using properties controlled by Metro-North and the City of Poughkeepsie.

- A Request for Expressions of Interest (RFEI) was issued by MTA Real Estate in December 2017, the culmination of a multi-year collaborative effort between Metro-North and the City of Poughkeepsie with technical support from Dutchess County and Scenic Hudson. The RFEI was issued in conjunction with the City of Poughkeepsie to identify interested and qualified developers to design and construct a dynamic, mixed-use TOD at the Poughkeepsie Station Facility. A Pre-Bid Conference and Walking Tour was held in February 2018 and proposals are due in April 2018.
- Should there be proposals that meet Metro-North's and the City of Poughkeepsie's requirements for development that will encourage rail usage, the next step would be to engage the development community via a Request for Proposals (RFP). Any property disposition would be subject to the Public Authorities Law and MTA Board approval.

### **Harriman TOD**

- In 2008, following a comprehensive planning process involving numerous stakeholders in the community, the Village of Woodbury implemented its adopted Comprehensive Plan for TOD which sets forth a series of zoning and development standards which apply to the area at and around Railroad property.
- The adjacent property owner at Harriman Station has submitted conceptual plans to the Village of Woodbury for a multi-use Transit Village type of development called "The Gardens at Harriman Station." Metro-North has provided comments on the Environmental Review documents issued by the Village of Woodbury for the "Gardens at Harriman" as Metro-North is an adjacent land owner and "Interested Agency."
- Pursuant to the Public Authorities Law, MTA Real Estate has issued a competitive RFP for an easement for use of the Harriman Station Access Road and utilities under it. Furtherance of this project would require a property disposition, which would be subject to a competitive RFP under the Public Authorities Law and MTA Board approval.

### **TOD Support Multiple Locations**

Metro-North strives to enhance the region's mobility by leveraging Railroad assets and supporting TOD interest in the communities we serve. Where we own property at a station, we may partner with the local community once they've achieved consensus and political willingness. Where Metro-North does not own property at a station, we support those communities interested in TOD. Over the past year, Metro-North has supported numerous such interests in improving access to the Railroad, including:

- **White Plains Transit District Strategic Plan**

Metro-North continues to support the White Plains Transit District Strategic Plan, which seeks to create an integrated regional transportation hub for rail, bus, taxi and shuttle service, improving connections between White Plains and New York City, Yonkers, New Rochelle, Stamford, CT, and other local activity nodes. A key focus has been the new bus rapid transit (BRT) service (the Lower Hudson Transit Link (LHTL) planned to operate between Westchester and Rockland Counties, anticipated to open in conjunction with the opening of the Governor Mario M. Cuomo Bridge in 2018. The Strategic Plan also identifies additional short- and long-term investments that leverage and build upon early action for redeveloping and can transform the area around the White Plains Metro-North station and Westchester County Bee-Line bus station into a multimodal, active, pedestrian-oriented gateway to the downtown. With the final public meeting completed in December 2016, Metro-North will continue to support the region's efforts, while implementing improvements to the White Plains train station as part of the Enhanced Station Initiative which

improve the customer experience at the station while supporting the City of White Plains station area redevelopment efforts.

- **Nanuet TOD**

Under a “Cleaner, Greener Communities” grant from the New York State Energy Research and Development Authority, Metro-North worked with the Town of Clarkstown Planning Department and other stakeholders on plans to redevelop Nanuet into a mixed-use, transit-oriented neighborhood centered on a new multi-modal transit station. Metro-North was a member of the Advisory Committee and active participant in the Study, which was completed in Fall 2017. The recommendations of the study focused on the Nanuet Hamlet Center, which is home to the Town’s only commuter rail station. New zoning must be developed to better reflect and reinforce the traditional main street layout of the area, while providing opportunity for mixed-use development and housing near the station. The study identified targeted strategies to address major issues confronting the Town, and establish an individualized implementation plan that will assist Clarkstown in pursuing funding for specific projects, including the Nanuet Hamlet Center TOD, over the next five years. Metro-North will continue to support the Town as they move forward with zoning changes and redevelopment.

- **Port Chester TOD**

Metro-North has been in discussions with the Village of Port Chester regarding their interest in pursuing potential development projects around the Metro-North station. The Village did complete a Mobility and Parking Management Study in 2017 including recommendations. Metro-North supported the study and will remain engaged with the Village on development opportunities around the station.

- **Tarrytown TOD**

Metro-North and MTA Real Estate continue to work with the Village of Tarrytown to coordinate any traffic and station area improvements associated with its plans to build upon local developments and recent Metro-North capital investments at and adjacent to the station, as well as future development proposals to improve connections between the station and downtown.

- **Mount Vernon West**

MTA Real Estate and Metro-North met with the owner of the former station building regarding his redevelopment plans. This owner is also developing two other high-rise apartment buildings within walking distance of station. MTA Real Estate requested information from the developer primarily regarding how any new development would impact the pedestrian access to and circulation around the station as well as Metro-North’s ongoing needs at the station.

- **Brewster**

In August 2016, the Village of Brewster adopted their Urban Renewal Plan and subsequently selected Covington as the master developer. The urban renewal plan includes “Envision Brewster” which is a multi-use development within walking distance of the Brewster station. Metro-North wrote a letter of support for the Village to obtain federal TIGER grant funds towards transportation improvements that complement the proposed TOD and will continue to work with Putnam County and the developer to provide relevant support for the Village’s efforts.

## **STATION AREA PLANNING AND PARKING INITIATIVES**

### **Purdy’s / Croton Falls Station Areas**

- Metro-North completed a study evaluating alternatives to resolve the commuter parking shortage in the area which has resulted in up to 250 vehicles parking on roadway shoulders along NYS

Route 116 adjacent to Purdy's Station and Croton Falls Road and Route 202 near the Croton Falls Station. Stakeholders in the process include the Towns of North Salem and Somers; New York State Department of Transportation (NYSDOT) Region 8; and the New York City Department of Environmental Protection.

- The FTA has approved a Categorical Exclusion for the project.
- Metro-North is planning to purchase property and construct up to 450 surface parking spaces near the Croton Falls Station; area stakeholders have been briefed.
- MTA Real Estate is currently in negotiations for a contract to purchase the property with a request for MTA Board approval anticipated in mid-2018.

### **West of Hudson Parking**

Metro-North reduced the cost of annual parking at all West-of-Hudson stations from \$235 to \$20, a 91% price reduction, resulting in a savings for commuters of over \$215 per year. Daily meter parking fees were also permanently reduced by 55% from \$2.75 a day to \$1.25 a day. Metro-North has experienced a 90% increase in the number of customers taking advantage of the discounted parking since it was first introduced as a pilot program in 2014. The railroad has 3,766 permit spaces and 995 daily meter spaces at six stations on the Port Jervis Line and three stations on the Pascack Valley Line. Permits are available at all stations.

### **Lower Hudson Transit Link – Spring Valley**

Concurrent with the opening of the Governor Mario M. Cuomo Bridge, the New York State Department of Transportation (NYSDOT) is planning a new bus rapid transit (BRT) service (the Lower Hudson Transit Link (LHTL)) to operate on a designated lane on the bridge between Westchester and Rockland Counties. The service is scheduled to open Fall 2018. The Spring Valley intermodal area, which is owned by Metro-North, will be one of the stops for the new service. NYSDOT plans to upgrade one of the four existing bus bays in the intermodal area to accommodate amenities for LHTL customers (pay stations, Wi-Fi, real time information).

Metro-North will also advance a capital project for component rehabilitation of the station access areas to improve the roadway conditions and customer experience at Spring Valley. Investments in the intermodal bus area adjacent to the plaza and the parking lot serving Metro-North customers will help to maintain the station environment and reduce the potential for slip, trip and falls, while also supporting LHTL service. Complementing NYSDOT's upgrade, Metro-North will be making priority repairs to the other three (3) bus islands to address critical needs including repairs of curb cuts and provision of a painted path to connect the bus bays to the station plaza area. Rockland County will be providing new shelters for the bus islands. Metro-North will also re-surface the asphalt parking area at the Spring Valley station.

### **125th St – Uptown Metro-North Visioning**

Metro-North and MTACC are on the Steering Committee for the Uptown Metro-North Community Planning process managed by WEACTION for Environmental Justice. This is a community-based planning program to leverage the infrastructure improvements in the neighborhood with upcoming 2<sup>nd</sup> Ave Subway, Metro-North's Harlem 125<sup>th</sup> Street station, NYCT 4,5,6 Subway and bus service to provide a plan for a transit hub to benefit the community. The Metro-North Harlem-125<sup>th</sup> Street Station is a major transportation hub for the area and the Park Avenue Viaduct traverses along the



western portion of the study area. Currently, New York City Department of Transportation is making improvements to address vehicular circulation in the Metro-North Harlem 125<sup>th</sup> Street station area.

## **RAIL TRAIL INITIATIVES**

Metro-North continues to work with New York State Parks, local municipalities and trail advocacy groups to support efforts to advance rail trails at select locations throughout Metro-North service territory, where feasible while protecting rail operations, establishing safety and security requirements, and providing input into the project development process to help preserve resiliency standards and other design elements. Active projects include:

- **The Empire State Trail:** As part of the Governor's initiative to construct the New York Empire State Trail from New York City to Canada and west to Buffalo/Niagara Falls, Metro-North Railroad will design and construct a trail along a portion of Metro-North Railroad's Beacon Line. The northern limit of the project will join the Dutchess County Rail Trail at Hopewell Junction. The southern limit is in Putnam County in the Village of Brewster. Preliminary design is underway with a design-build contract expected to be awarded in January 2019 with a goal of delivering this phase of the Empire State Trail by the end of 2020. Metro-North will work with Putnam and Dutchess Counties on the design and construction of the trail, preserving the future potential for rail operation on the line. Once completed, it is expected that Putnam and Dutchess Counties will operate and maintain this section of the Empire State Trail.
- **Beacon Line Trail and Shuttle:** Metro-North is working with the City of Beacon and Dutchess County to pursue a study for the potential to have a shuttle service between Beacon Station and Route 9 in Fishkill with an accompanying trail. The trail and shuttle would use a portion of the Beacon Line that currently does not have active rail use and would not be used for the Empire State Trail. Metro-North has granted Beacon and Dutchess County three years to pursue their study of this portion of the Beacon Line.
- **Hudson Highland Fjord Trail/Breakneck Connector:** Proposed by Scenic Hudson and the Town of Fishkill, the Hudson Highland Fjord Trail is a 7-mile shared use trail from Cold Spring to Beacon. In 2015, Scenic Hudson, with local municipalities, completed a Preliminary Draft Master Plan, identifying a preferred trail route on a segment-by-segment basis. An environmental consultant is currently preparing an environmental impact statement on the Preliminary Draft Master Plan and proposed trail alignment. The Draft EIS is scheduled to be completed in the fall of 2018. New York State Parks is the Lead Agency for the EIS process.

The Breakneck Connector segment, located in the area of Metro-North's Breakneck Ridge Station, is a subset of the Hudson Highlands Fjord Trail that was determined to have "independent utility" and is advancing as a separate project. The Breakneck Connector segment, addresses project-specific safety concerns related to high pedestrian volumes, inadequate parking, and high traffic speeds on Route 9D generated by the popular Breakneck Ridge trail. The new trail connector will be built primarily on Metro-North property. A lease with the Town of Fishkill was approved by the MTA Board. The project will include fencing to safely separate trail users from rail operations, as well as station platform improvements at the Breakneck Ridge Station. Construction is anticipated to begin in 2018. While this connector is being build the trail head will be closed, so trains will not be stopping at the Breakneck Ridge Station during construction.

- **Bronx Greenway Trail Feasibility Study:** State Senator Klein secured a \$250,000 state grant for Metro-North to conduct an engineering feasibility study at the request of the local Community Board (Bronx Community Board 8) to determine whether a trail is feasible west of the tracks in an approximately three-mile stretch heavily used by both Metro-North and Amtrak along the Hudson Line, from an area north of the Spuyten Duyvil Station to the Ludlow Station. Metro-North awarded a consultant contract and kicked off the study in 4<sup>th</sup> Quarter 2016. The study has assessed the opportunities and challenges in this congested segment of Metro-North's system, evaluating the feasibility of potential trail alignments on a segment by segment basis. A key component of the feasibility study has been weighing the opportunity to construct a trail in the area against numerous existing challenges the project area poses, such as safety and security concerns, ensuring integrity of rail operations, trail access constraints, resiliency and storm surge, and constructability and maintainability. The final report and study completion is anticipated in the 1st Quarter of 2018.
- **Riverwalk:** This proposed trail seeks to connect the existing segmented Riverwalk Trail in Westchester County. The proposed trail alignment would connect the existing Riverwalk Trail that exists north and south of the Tappan Zee Bridge, along the Hudson River. Connections to the shared-use path of the new Tappan Zee Bridge would also be enabled by this project. A consortium of local shareholders and Scenic Hudson have engaged an engineering consultant to prepare an engineering feasibility study. The feasibility study is slated to be finished by summer 2018.

#### CONNECTING SERVICES:

<b>Bronx County</b> <u>Hudson Rail Link</u>	<ul style="list-style-type: none"> <li>• Hudson Rail Link operations continued their smooth course in the first full year of operations by the new contractor, SNT Bus/Consolidated Bus Transit, Inc.</li> <li>• No new buses were purchases in 2017, however, the cyclical replacement program will resume in 2018.</li> </ul>
<b>Rockland County</b> <u>Haverstraw-Ossining Ferry</u>	<ul style="list-style-type: none"> <li>• A project to reconstruct the Haverstraw ferry dock scheduled for 2017 was delayed until 2018 due to the late receipt of required permits. The project is expected to be completed in Fall 2018.</li> </ul>
<b>Rockland County</b> <u>Tappan Zee Express</u>	<ul style="list-style-type: none"> <li>• To help improve transit access to Metro-North services from Rockland County, and free local transit funds for use within Rockland County, Metro-North agreed to provide funding for an expansion of Tappan Zee Express service on Saturdays, and the institution of Sunday Tappan Zee Express service. Both of these initiatives became effective in August 2017, with higher than expected ridership experienced almost immediately.</li> </ul>
<b>Orange County</b> <u>Newburg-Beacon Ferry</u>	<ul style="list-style-type: none"> <li>• Preliminary design on a replacement for the Beacon ferry dock continues. A construction completion date has not yet been determined, nor has funding been identified for this project.</li> </ul>

## **ENTERPRISE ASSET MANAGEMENT**

Each of the MTA agencies continues to invest in an Enterprise Asset Management (EAM) system, which includes substantial investments in both business and technology. During 2017, progress was made finalizing the procurements of Metro North's interim EAM solution

In 2017, significant work was made in the design and development of the FRA Signal inspection requirements into the Infor EAM system and a supporting mobile technology. This work establishes the ability to register signal assets remotely in the field through the use of an iPad, pilot test the use of a mobile signal inspection app on an iPad, establish a full integration between the mobile signal inspection app and the Infor EAM desktop system and develop various Infor FRA signal inspection reports.

Metro-North also progressed the business re-engineering process and established the Signal and Power Department "To-Be" Infor work order request/work order management business process mapping. This will be used with the Infor system to provide future reporting, tracking and reporting of asset repair and maintenance requests. This effort provides a foundation for which to develop best practices and instill a centralized approach to work order request/work order management, assisting Metro-North to promote a standardized and transparent monitoring and maintenance management approach for asset management.

Other activities also included the further development of the MofW and MofE cross agency asset hierarchies with LIRR. This work is required to support the asset registration efforts and will enable data management and reporting from the Infor EAM system.

MNR and LIRR jointly received MTA IT Steering approval to procure management consultant services and system integration services consultants for the configuration and implementation of a MNR and LIRR Maintenance of Equipment (MofE) EAM Information System (EAM-IS) solution in 2018 for a multi-year implementation.

In order to support the various EAM efforts, the development and progression of various procurement and hiring activities also aggressively continued.

## **GEOGRAPHIC INFORMATION SYSTEM**

A Geographic Information System (GIS) is a mapping and planning tool used to visually represent asset, operational, legal and topographic data with regard to its location. Metro-North Railroad deployed its first Enterprise GIS software in 2014, developing and distributing a uniform set of web mapping viewers designed for all employees, creating a company-wide GIS office and promulgating GIS policies and standards. Current advances have enabled the rollout of mobile device accessibility, allowing field forces to reference and share information without printing out hardcopy maps, calling into the office or being at a desk. GIS will be a critical tool to support the organization of Enterprise Asset Management data.

The GIS Concept of Operations Study (ConOps) was completed in 2016 and resulted in the development of the following geospatial business process projects moving forward now:

- Automated Output of Straight Line Diagrams: This project will provide a method to use GIS data to automatically generate and overlay single line drawings on a web interface such as a track chart and will ultimately be fully integrated with EAM. This project schedule will be determined when funding resources are identified.
- Plan Room Integration: This project will provide online access to as-built drawings in the plan room through the EGIS interface (an EAM funded project). This project started in May 2017, and is expected to be completed by the end of 2019.
- GIS Integration Services for Railroad Property Management “Yardi”: This project will provide online access for designated staff to accurate property lines of Metro-North railroad rights-of-way (ROW), stations, leases, yards, utility easements, encumbrances, and other real estate holdings for all professional, technical, and managerial employees to support all service and business functions. This project started in March 2017 and will be completed in March 2018.

The following five new GIS business process projects were in progress or developed during 2017:

- Ridership and Demographics Mapping GIS Study: This project will configure the existing web-based GIS software to visualize various internally-generated ridership data, demographic data, forecasting models, custom survey data, and ticket sales data. This project is expected to begin in the first quarter of 2018.
- Safety Department Emergency Contingency Plan: This project will support employee safety by providing customized GIS web applications to visually depict various internally-generated emergency coordinator data points, evacuation assembly area data, access entrance point data, waste storage facility data, and hospital/first responder/police data for Metro-North Railroad yards and facilities. This project is in progress and will continue in 2018.
- Security Department Customized Incident Story Map Application: This project will provide a customized application to enable designated users to visually review locations of security incidents and support security analysis functions. This project is in progress and will continue in 2018.
- Inventory and Inspection of Retaining Walls: This task is to inventory and inspect all retaining walls located along Metro-North’s right of way using ArcGIS Collector. This project conducted inspections and recorded mapped data on three lines, totaling 168 miles and 655 walls. Data collection and inspections are complete and this data is under Metro-North review for use by maintenance and capital programming teams.
- Visual Train Tracking System Upgrade (VTTS): This project will be developed in-house at Metro-North Railroad to create a modern and reliable display train locations on a diagrammatic map on a schematic diagram viewer. The project is managed by MTA IT with GIS support and is expected to be completed in 2018.

### **III. STRATEGIC CAPITAL INVESTMENTS**

#### **ROLLING STOCK**

**Purchase of 405 M-8 cars for New Haven Line Service (35% share for Metro-North; \$356.1 M, Balance of program (65% share; \$746.7 M) is funded by Connecticut Department of Transportation (CTDOT))**

- 376 cars in married pair configuration and 25 single unpowered cars are in Revenue Service. Four cars damaged in Bridgeport will be repaired in 2018-2020.
- The existing M-8 cars have led to improved customer satisfaction levels and have achieved very high mechanical reliability, far in excess of expectations. Through 2017, the cars are averaging 302 thousand miles between mechanical breakdowns, above our Mean Distance Between Failure (MDBF) goal.
- The M-8 fleet has been going through different phases of systems modification. The phase three modification commenced in July 2015 and is scheduled to be complete in June 2018.

**Purchase of 60 (and up to 94) M-8 cars for New Haven Line Service (\$92 M, Balance of program (\$190 M) is funded by CTDOT for the 60 car base)**

- The MTA Board has approved an order for 60, and up to a total of 34 option cars of new M-8 rail cars that provide additional capacity on the New Haven Line. The cars, the first of which are expected to enter service in 2019, will allow Metro-North to lengthen rush hour trains, retire the last 36 older M-2 cars, increase safety, and have the flexibility to increase train service in the years ahead to accommodate growing ridership. The cars will supplement the 405 existing M-8 cars already in use on the New Haven Line and New Canaan Branch. New cars will be equipped with Positive Train Control and CCTV.

#### **GP-35 Locomotive Overhaul (\$11.0 M)**

An in-kind overhaul with complete electrical rewire of six Metro-North GP35 locomotives and the procurement and overhaul of two additional GP35 (total of 8) is underway. The locomotives are in excess of their expected life and are no longer able to perform reliably. The additional GP35s are to replace existing Metro-North GP8/GP9 locomotives. Six locomotives are complete and on property. The remaining two will be completed in 2018.

#### **GRAND CENTRAL TERMINAL**

- **GCT Train Shed /Park Avenue Tunnel Structure (\$90.4 M)** – This rehabilitation project involves the inspection, assessment, design and construction of select areas of the Grand Central Terminal train shed and in the Park Avenue Tunnel, beginning from the bumping posts and extending north to the portal of the tunnel at East 97th Street. A program of priority repairs is underway for the GCT Train Shed. Work includes steel repairs, final paint coat at many locations. In 2017, Metro-North hired a Program Management consultant to begin design of a phased replacement program of the full Train Shed to be progressed in future Capital Programs.
- **GCT Leaks Remediation (\$33.2 M)** - Project to reduce water infiltration from roadways immediately adjacent to GCT. Completion is in the second quarter of 2018.

#### **ENHANCED STATIONS INITIATIVE (\$135.6 M)**

The Enhanced Stations Initiative seeks to improve comfort and convenience at select stations refining underlying station standards. Metro-North will enhance the aesthetics and amenities of station and

the passenger's experience and improve stations through design innovation and excellence, all with minimal disruptions to customers. These enhancements will result in stations that are cleaner and brighter, and provide more intuitive way-finding signage and twenty-first century amenities such as Wi-Fi and cellular connectivity.

A design-build contract was awarded in December 2017 for this program with work planned at White Plains, Harlem-125<sup>th</sup> Street, Crestwood, Port Chester and Riverdale. The scope varies by station, but elements of work include upgrades to electrical and communication systems including cameras, platform replacement, new signage and navigation systems providing information at street level, fare control areas, and platforms via dashboards and totems, improved street entrances, new LED lighting and illuminated handrails, charging stations, benches, and leaning bars, and art installations coordinated with MTA Arts and Design. As part of the station enhancement work a considerable amount of State of Good repair work is being accomplished at these stations, with White Plains receiving the most rehabilitation with complementary enhancements.

The final design and construction will follow three (3) planned construction stages:

- Stage 1: White Plains Phase I, Port Chester Westchester Avenue Bridge painting, Riverdale Station
- Stage 2 - White Plains Phase II, Port Chester, and Harlem-125th Street
- Stage 3 - Crestwood Station

White Plains Phase I and Riverdale Station improvements are scheduled to be completed by the 4<sup>th</sup> Quarter 2018 with the remaining work elements completed in stages by 3<sup>rd</sup> Quarter 2020.

### **CUSTOMER COMMUNICATIONS IMPROVEMENTS (\$213.0 M)**

In December 2017, Metro-North awarded eight contract packages to begin its multi-program Customer Service Initiatives (CSI) to improve customer communications in Grand Central Terminal and at outlying passenger stations. Implementation will be phased over several capital programs with initial design-build construction beginning in the 1st Quarter 2018. Improvements include the following:

- Replacement of the existing Grand Central Terminal Visual Information System (VIS) including cable plant, Big Board, gate boards and other displays and head-end (central control)
- Make improvements to the GCT Public Address System and interface the GCT PA System with the new Customer Communication Information System
- New communication links to passenger stations
- Replacement of all wayside Public Address (PA) systems at passenger stations
- New passenger station digital real-time displays (new and modify existing)
- New customer communication intercoms at passenger stations
- Video Surveillance Systems and upgrade of Video Management System "Head End"
- Cameras (new and modify existing) at passenger stations
- Upgrade/centralization of all elevator control systems.
- Expansion/upgrade/centralization of all electronic access control systems
- New station local area networks (LAN's) for all station devices

The current Capital Program includes the normal replacement of infrastructure necessary to advance the initial 18 East of Hudson stations in New York State plus two West of Hudson stations, including Port Chester, Rye, Harrison, Mamaroneck, Larchmont, New Rochelle, Pelham, Mt. Vernon East, Tremont, Melrose, Harlem-125<sup>th</sup> St, Morris Heights, Spuyten Duyvil, Riverdale, Tarrytown, Ossining, Poughkeepsie, Southeast, Nanuet and Harriman. Rollout to the remaining stations is planned for future capital plans. Additionally, the Public Address Head End for outlying stations will be replaced at this time. This new Head End will drive the Public Address announcements at all stations even though replacement hardware and VIS will only be included at the initial 18 East of Hudson stations.

## **NEW FARE PAYMENT SYSTEM**

As part of the MTA New Fare Payment System (NFPS), Metro-North, jointly with Long Island Rail Road (LIRR), worked to develop joint specs with NYCT for the design for a new fare payment system and configurable vending machines to be installed and deployed in the 2020-2024 Capital Program. The contract was awarded to Cubic in late 2017 and conceptual design commenced in 2018. The new system will provide full interoperability with the NYCT NFPS system.

The MTA NFPS is based on open payment industry standards and will be implemented for all MTA bus and subway services as well as both commuter railroads. NFPS will design, develop and implement a new fare payment system that enables the MTA to accept contactless payment cards and payment-enabled phone capabilities for fare payment directly at point of sale.

## **OUTLYING STATIONS IMPROVEMENTS**

### **New Haven Line (NYS Portion) (\$7.3 M)**

- **Port Chester Station Elevator and ADA Ramp**

This project provides for the design and construction of a new elevator at the Port Chester station on the outbound side at Westchester Avenue. An ADA ramp will be constructed at the inbound side for customers moving from one platform to the other. Construction was completed and the elevator was placed into service at the end of November 2017.

### **Hudson and Harlem Lines**

- **Harlem Line Drainage Improvements (\$18.9 M)**

The Harlem Line Drainage Improvements Project is a multi-phase project to mitigate drainage concerns and issues in the Bronx by installing underdrain pipe and catch basins between Mott Haven Yard (162nd St) and Botanical Gardens (200th St). The overall drainage system will be connected to the NYCDEP combined sewer system at locations where the pipes cross under MNR's tracks. Phase 1 installed drainage pipe & catch basins between 168th St and 170th St & 173rd St and 175th St. Phase 2B installed drainage pipe and catch basins between 170th St and 173rd St., along with installing pipe and catch basins between 162nd St and 168th St to create a continuous drainage system from 162nd St to 175th St. Finally, catch basins only were installed at 175th St, 176th St, 178th St, in preparation for drainage pipe installation in a future project. All work was completed by the end of 2017.

- **Lower Harlem Line Stations - Design (\$4.1 M)**

This project includes the design for repair of platform structural elements, canopies and stairways to maintain a state of good repair at Williams Bridge, Woodlawn, Botanical Gardens, Mt. Vernon West, Fleetwood, Tuckahoe, and Bronxville. Work also includes an elevator to be installed at

Wakefield and permanent structural improvements to the Botanical Gardens outbound canopy. This canopy design will be submitted to SHPO for their review. The design for all phases is scheduled to be completed in June 2019.

- **East of Hudson Station Priority Repairs – Assessment/Design (\$5.1 M)**

This project includes the assessment and preliminary design necessary to define priority structural repair needs at select stations on East of Hudson Lines in New York State, including platforms, stairways, piers, and underpasses. On the Upper Hudson Line, locations include Poughkeepsie, New Hamburg, Beacon, Cold Spring, Garrison and Cortlandt. On the Harlem Line, locations include Southeast, Brewster, Croton Falls, Purdy's, Goldens Bridge, Katonah, Bedford Hills, Mount Kisco, Chappaqua, Pleasantville, Hawthorne, Mt Pleasant, Valhalla, North White Plains, White Plains, Hartsdale, Scarsdale and Crestwood. The New Haven Line locations are Larchmont and Rye. The objective is to identify structural priority repairs necessary to address deteriorating elements of the stations platforms and prioritize investment needs in the current capital program. As a result, design and construction will be advanced in the 2015-2019 Capital Program to address significant needs at the Hartsdale and Scarsdale stations, including replacement of platforms, new canopy and elevator, and customer information improvements. This will also inform the 2020-2039 Twenty Year Needs Assessment and future capital programs. Completion is anticipated in 2018.

## **STRUCTURES IMPROVEMENTS**

### **Undergrade Bridge Program: (\$81.8 M East of Hudson)**

The 2010-2014 and 2015-2019 programs continue previous efforts for the rehabilitation of select undergrade bridges located on the Hudson, Harlem and New Haven Lines in New York State. Scope includes Metro-North Force Account construction, 3<sup>rd</sup> party consultant design of select undergrade bridges, and 3<sup>rd</sup> party consultant inspection and load rating of 367 undergrade bridges.

Work in Progress includes:

- Force Account rehabilitation:
  - HU 3.41 over 110th Street in New York - Pointing and stone arch repairs.
  - HA 14.57 over the Bronx River in Bronxville - Steel repairs and backwall replacement.
  - HA 22.41 over Main Street in White Plains - Repairs to bottom of steel columns.
  - NH 14.65 over Bradford Avenue in Mount Vernon - Steel and bearing repairs.
  - NH 20.12 over Fenimore Road in Mamaroneck - Steel and bearing repairs under Tracks 1 and 2.
  - NH 20.39 over Mamaroneck Avenue in Mamaroneck - Steel and bearing repairs under Tracks 1 and 2.
  - HU 4.69 over the Harlem River in New York - Fabrication and installation of walkways along Tracks 1 and 2.
  - HU 3.01 (102<sup>nd</sup> Street) to HU 3.31 (108<sup>th</sup> Street) in New York - Repairs to the Park Avenue Viaduct.
- 3<sup>rd</sup> Party construction work includes:
  - NH 25.74 over Willet Avenue in Port Chester – Superstructure replacement and substructure rehabilitation.
  - HA 61.06 / HA 61.36 over the Croton River in Patterson – bridge replacement



- HU 4.69 over the Harlem River in New York – Fender rehabilitation and superstructure repairs.

### **Overhead Bridge Program East of Hudson (\$72.2 M)**

The 2010-2014 and 2015-2019 programs continue previous efforts to address overhead bridge state of good repair needs at select locations located on the Hudson, Harlem and New Haven Lines in New York State. Work includes Metro-North Force Account bridge repairs as well as plans for full replacements as warranted.

- 3<sup>rd</sup> Party construction work in this project includes:
  - Mount Vernon bridges: Metro-North has partnered with the City of Mount Vernon to replace some of the bridges that pass over the New Haven Line in Mt. Vernon. Utilizing a combination of funding from the MTA Capital Program, an earmark from Congressman Gary Pretlow and monies from the City of Mt. Vernon, Metro-North has begun the design of replacement bridges at 6<sup>th</sup>, 10<sup>th</sup> Avenue, North 14<sup>th</sup> Avenue, 3<sup>rd</sup> Avenue and Fulton Avenue. The 2010-2014 and 2015-2019 Capital Programs have allocated funds to design all five of these Mount Vernon bridges and construction for replacement of 6<sup>th</sup>, 10<sup>th</sup>, North 14<sup>th</sup> and 3<sup>rd</sup> Avenue dependent upon timely receipt of funding from the City of Mt. Vernon (\$5 million). Construction for the Fulton Avenue Bridge will proceed in the next program.
  - Prospect Hill Road bridge replacement: This 110 year old structure traverses Metro-North Brewster Yard and Harlem Line main tracks, south of the Southeast Station. The bridge was closed on an emergency basis to traffic and is no longer repairable due to severe deterioration to structural members. A design-build contract to replace this structure was awarded in 2<sup>nd</sup> Quarter 2017 with construction anticipated to be completed by the end of 2018.

### **Undergrade Bridge Program (\$21.2 M West of Hudson)**

The 2010-2014 and 2015-2019 programs continue previous efforts for design, repairs, rehabilitation or replacement to select undergrade bridges located on the Port Jervis Line. This project includes:

- Consultant design is complete for repairs to the following bridges: JS 61.56 Twin Arch Road, JS 63.04 Shea Road, JS 47.19 Stream, JS 58.64 Toleman Road, JS 62.00 Route 208 and JS44.80 in Harriman.
- Force Account repairs to the following bridges commenced in 2017: JS44.80 in Harriman, JS 63.04 Shea Road, and JS 66.22 Route 207.
- Consultant inspection and design commenced in December 2017, preparing for the rehabilitation or replacement of the following bridges: JS 42.77 Ramapo River, Harriman, JS 47.53 Estrada Road, Central Valley, JS 47.73 Laura Lane, Central Valley, and JS 47.88 Smith Clove Road, Central Valley.

## **SIGNAL SYSTEM AND POWER INVESTMENTS**

### **Signal System/Cabling Improvements (Harlem, Hudson and New Haven Lines)**

#### *New Haven Line:*

- Design and construct a new communications and signal system (CP 212 – CP 229) for the New York State portion of the New Haven Line (extending approximately three miles into Connecticut). This new design incorporated recommendations of the Strategy/Master Plan to optimize block spacing to improve capacities and trip time on this section of the New Haven Line. The project was completed in December 2016. This work supports PTC, CSI and other wayside signal equipment.

#### *Harlem and Hudson Lines:*

- Design communications and signal improvements for the Upper Hudson Line from Croton-Harmon to Poughkeepsie. The express cabling design was completed in 2017 with design efforts continuing into 2019 for the pre-wired signal equipment.
- Phased construction will begin under the 2015-2019 Capital Program and be completed under the 2020-2024 Capital Program. 2015-2019 work will include express cabling to support PTC as well as procurement of long lead prewired signal equipment.
- Harlem Line Wayside communication and signal construction will include express cabling to support a number of strategic initiatives including PTC and CSI improvements.

#### **Positive Train Control (PTC) (\$ 463.2 M)**

PTC is a system designed to prevent train-to-train collisions, overspeed derailments, incursions into established work zones, and the movement of a train through a switch left in the wrong position. In accordance with the Rail Safety Improvement Act of 2008 that was signed into law, an interoperable PTC system is required on all commuter railroad main-line tracks. PTC installation is progressing to comply with the requirements of the FRA's mandate for December 31, 2018.

- Metro-North and LIRR PTC Systems Integrator (SI) contract was awarded November 2013.
- The SI has completed System and Subsystem hardware Final Design Reviews (FDR). Systemwide implementation of Civil Speed Enforcement (which prevents overspeed derailments) functions was completed in the first quarter of 2018.
- Wayside Interface Equipment, antenna poles and radio case foundations continue to be installed in pilot sections. At Arch Street facility, 22 M7 PTC Production Kit installations have been completed.
- As part of separate contract, Siemens (PHW Inc.) is continuing to furnish ATC and PTC onboard kits for P32 locomotives and cab cars. The force account installations on 31 locomotives and 29 cab cars have been completed.
- FCC granted Metro-North spectrum modification request to provide spectrum in Orange, Dutchess, Fairfield and New Haven counties completing Metro-North's acquisition of spectrum covering its service territory.

#### **Harlem Line Capacity Improvements (\$29.9 M)**

Based on a capacity study of the Bronx segment of the Harlem Line, Metro-North is constructing a new interlocking (CP 109) located between Fordham and Botanical Garden Stations to improve capacity and reliability in this key segment of the railroad. The projected cutover date for the new interlocking is anticipated for second quarter of 2018.

#### **West of Hudson Signal Improvements (\$88.7 M)**

This project includes installation of a new Cab Signal system replacing the existing wayside signal system for the Port Jervis Line between Suffern, NY (MP 31.3) and Sparrowbush, NY (MP 89.9). The project provides for more reliable service, additional capacity and incorporates PTC improvements to enhance the level of safety on the line.

#### **Harlem and Hudson Power Improvements (\$43.7 M)**

This project includes various improvements to the DC traction power supply system on the Hudson and Harlem lines to improve reliability and add capacity to the traction power systems to

accommodate increasing loads, to improve acceleration to maintain train schedules, and to add redundancy/reliability in the Park Avenue Tunnel. Work includes:

- Construct the new 86th Street Substation. The existing substation is rated at 3.3MW and is fed from a single Con-Ed source. The new substation will provide 6.6MW of power and utilize two independent feeds from Con-Ed improving the system operation redundancy. The Con-Ed feeder system in Manhattan consists of a highly redundant 13.2 KV underground network serving the adjacent substations with no planned outages by Con Edison during the construction duration. Construction completion is anticipated in early 2018.
- Construct a new substation at Brewster (B-52). Construction was combined with the project to replace 3 DC traction substations damaged by Superstorm Sandy. Completion is anticipated in 2018.
- Replace the existing negative return reactors at 110th Street with larger size units. Work was completed in 2016.

#### **New Haven Line Traction Power Improvements (New York State) (\$63.1 M)**

The Traction Power supply station at Mt. Vernon, New York (Bridge 23) is being replaced with a new facility for improved reliability and additional capacity. New York Power Authority is implementing this project as a turnkey design-build. Work is ongoing with major equipment fabrication. Project completion is expected by the end of 2018.

#### **New Haven Line Traction Power Investments (in Connecticut) (Funded and managed by CTDOT)**

Metro-North and CTDOT are working on the remaining catenary work. Work continues on replacing the overhead wire or catenary system that supplies power to the New Haven Line's electric trains. The new "Auto-Tension" system is more reliable and allows trains to take advantage of the maximum speeds on the Line. The Catenary Project is divided into sections in order to run train service while making a full overhead wire replacement. Four sections have been completed. The final phase of construction for the remaining sections is underway. One segment of catenary work is proceeding as part of the Atlantic Street Bridge Replacement Project Phase 2 in Stamford. This includes installing catenary for the extension of Track 7, which is currently under construction. The second catenary project, replacing catenary for the Stamford Yard leads and Car Wash Facility, is projected to begin in fall 2019. This will complete the entire catenary replacement from the New York State line to New Haven.

### **SHOPS AND YARDS INVESTMENTS**

#### **Harmon Shop and Yard Rehabilitation (\$315.5M in 2010-2014 Capital Program; \$431.6 in 2015-2019 Capital Program)**

This project is part of a multi-phase program for capital improvements and upgrades at Metro-North's Croton-Harmon Shops and Yards.

Phase V is a design-build project being implemented in two stages. Phase V Stage I (funded under the 2010-2014 Capital Program) includes the design-build of a Consist Shop and a new stand-alone Wheel Shop (EMU Annex) which will improve the phasing of the project. Site work and the shell of the building are complete. Interior mechanical, electrical and plumbing installations are ongoing. Finish work has begun. Factory Acceptance Testing of major industrial shop equipment is underway with equipment beginning to arrive to the site. Project completion is anticipated in 2018.

Phase V Stage II (funded under the 2015-2019 Capital Program) consists of the design-build of a Running Repair and Support Shops. The preliminary design is complete and a two-phase procurement started in mid-2017 with proposals due in early 2018 and award anticipated in 2018.

Two Master Plan studies are underway: an update to the existing Maintenance of Equipment (MOE) Master Plan; and a new Master Plan study of Maintenance of Way (MOW) and Stores departments. These studies will provide a comprehensive review of Metro-North facilities and chart a path forward for the facilities needed to support our expanding ridership and railcar fleet. These studies, anticipated to be completed in the first half of 2018, will inform the 2020-2039 Twenty Year Needs Assessment and the capital investments to be phased over the next several capital programs.

### **New Haven Line Projects in Connecticut** (funded and managed by CTDOT)

#### **New Haven Rail Yard**

- The total revised estimated cost of the New Haven Rail Yard Facilities Improvement program is \$ 1.363 B, of which \$543 M (Tier 1) is currently funded.
- Renovations to the existing Electrical Multiple Unit (EMU) and the Critical System Replacement (CSR) Shops are complete.
- The Component Change Out Shop (CCO) project was completed in August 2016. Departmental moves, punch list, warranty items and other outstanding items to be completed by June 2018.
- A revised New Haven Rail Yard Master Plan effort was completed for a 2013 build out and long-term plan. Projects will include a 2-track 10-car consist maintenance facility (Service and Inspection Shop) for the M-8 fleet, West end yard, Car wash, M of W facility, East End Connection, Pedestrian Bridge, M8 wheels and HVAC units storage facility, etc. 2013 plan was revised in 1st quarter of 2017.
- Independent Wheel True Facility: Complete
- M-8 Acceptance yard: Complete
- Diesel Storage Yard: Complete
- M of W project is complete as of June 2017. Apart from the track department, all other departments will move into new facilities in 1st quarter of 2018.
- Central Distribution Warehouse (CDW) is in construction with anticipated completion 2nd quarter of 2018.
- Yard Power Upgrade (YPU) is in construction with anticipated completion 2nd quarter 2018.

### **ENERGY SAVINGS**

- In response to New York's Executive Order 88 "BuildSmart NY" requiring state agencies to improve energy efficiency and implement energy savings practices, Metro-North is implementing the ISO 50001 Energy Management System framework to guide efforts in the most efficient, cost-effective, and environmentally responsible manner possible. ISO (the International Organization for Standardization) brings together experts to share knowledge and develop international standards that support innovation and provide solutions to global challenges. The ISO 50001 standard guides and supports organizations in using and managing energy more efficiently. Adhering to ISO 50001 has guided Metro-North to develop and implement an energy policy and establish objectives, targets and action plans. This will enable Metro-North to reduce our greenhouse gas emissions and other related environmental impacts, as well as reduce costs. Metro-

North aspires to become the first railroad in North America to have an Energy Management System with ISO 50001 Certification -- a worldwide recognition that indicates the railroad is an above average energy saver and adhering to higher international standards. This will enable Metro-North to reduce our greenhouse gas emissions and other related environmental impacts, as well as reduce costs. The ISO 50001 certification audit is tentatively scheduled for 2<sup>nd</sup> quarter 2018.

- Metro-North developed and implemented an Environmental Training Program for the Capital Department focusing on environmental compliance, sustainability, and resiliency. This program is being provided jointly by the Capital and Environmental Compliance Departments, and is intended to assure that all requirements and guidelines are considered in the infancy of all capital projects and carried throughout the life of the project and into operation and closeout.
- Metro-North has begun implementing new systems for energy efficiencies, including the installation of two new electronic Fuel Monitoring and Leak Detection Systems - one at Brewster Yard, and one at North White Plains Yard. A similar system is planned for installation at Harmon Yard, 525 North Broadway, Poughkeepsie Yard, Mott Haven Yard and Grand Central Terminal. These new systems will monitor diesel and heating fuel consumption, detect leaks, report back to an enterprise Energy Management System online, and ultimately lead Metro-North to better control how we monitor, manage and consume fuel.
- Metro-North has begun a project to replace over one hundred and fifty 1,000-watt High Pressure Sodium high mast yard lighting fixtures with by 500 watt LED fixtures at Croton-Harmon Yard. This lighting upgrade will increase the safety of our work force, reduce our high mast yard lighting energy consumption by 50%, reduce maintenance costs, and reduce light pollution, significantly improving community relations in the area. Installation is expected to take place in 2nd Quarter 2018. Metro-North expects this project to be completed in late 2018, and to fully pay for itself in energy and maintenance savings within five years.

## **SUPERSTORM SANDY**

On Monday, October 29, 2012 the New York region suffered the devastating effects of Superstorm Sandy. Over 50% of the Hudson Line right-of-way was completely submerged and substations and other power infrastructure systems inundated with salt water were significantly damaged. Falling trees damaged power lines and feeders, and crushed 3rd rail infrastructure components on the Hudson, Harlem and New York portion of the New Haven Lines.

### **Superstorm Sandy Restoration Projects**

In 2013, the MTA's 2010 – 2014 Capital Program was amended to allocate funds for restoration needs. The program was recently amended to reflect the updated needs to address these impacts, including the Metro-North Sandy Restoration Program:

<b>Restoration Projects</b>	<b>Cost (\$M)</b>
Rolling Stock Restoration	\$1.1
Right of Way Restoration	\$8.0
Communication & Signal Infrastructure Restoration	\$103.5
Communication & Signal Infrastructure Restoration – Equipment Replacement	\$5.2
Power Infrastructure Restoration	\$161.6
Power Infrastructure Restoration – Substations	\$44.4
Power Infrastructure Restoration - Harlem River Lift Bridge	\$7.6
Power Infrastructure Restoration - Remote Terminal Houses	\$1.3
Metro-North Power Restoration	\$35.0
Metro-North Restoration Reserve	\$23.6

### **Superstorm Sandy Resiliency Projects**

Metro-North also identified a need for resiliency projects to better protect the system against future weather events. Metro-North received FTA funding to progress some of the Superstorm Sandy Resiliency projects and continues to work closely with the MTA to advance resiliency projects; this program of work was recently amended to reflect updated needs:

<b>Resiliency Projects</b>	<b>Cost (\$M)</b>
Rail Vacuum Mitigation	\$6.0
Power and Signal Mitigation	\$50.0
Hudson Line Power and Signal Resiliency	\$31.0
MNR Communications and Signals Infrastructure Resiliency	\$8.8

### **Superstorm Sandy Progress:**

The major Sandy work for Metro-North centers on replacing 30+ miles of flooded and damaged infrastructure from the Bronx to Croton-Harmon. In May 2015, Phase I of the two-phased Design-Build contract was awarded for \$164M to replace communications and signal cabling and traction power cables and components, from Greystone (CP-19) to Croton (CP-35.) Phase II option from Greystone (CP-19) south to the Bronx (CP5) was exercised in November 2016 and will commence once Phase one is completed, anticipated 3<sup>rd</sup> quarter 2019. The other major Sandy work is the continuation of construction begun in 2014 to replace Hudson Line Substations at Riverdale, Tarrytown and Croton-Harmon with contractor construction completion 1<sup>st</sup> quarter 2018 and energization/cutover and user department (Metro-North Power) acceptance 1<sup>st</sup> quarter of 2018. Replacement of the Harlem River Lift Bridge AC Facility Houses was completed in August 2015.

#### **IV. PLANNING STUDIES**

##### **West of Hudson Regional Transit Access Study**

###### Background:

The West of Hudson Regional Transit Access Study (WHRTAS) examined alternatives for future commuter rail or bus rapid transit service to/from Stewart and the surrounding areas. This service would accommodate the airport's development and regional growth. Metro-North's current objective is to protect the right-of way for future project implementation. Phase I of the Study was completed in 2011 and resulted in a short list of four build alternatives for service to the Airport, including a rail extension from PJI's Salisbury Mills Station, a BRT solution from PJI's Salisbury Mills Station, a bus from Beacon Station, and a direct bus from Midtown Manhattan.

###### Progress to Date:

Metro-North remains committed to preserving the right-of-way needed to provide train service in the future to Stewart International Airport. It is anticipated that the Feasibility Study will be completed in 2018.

##### **Port Jervis Line Capacity Improvements Project**

###### Background:

Metro-North has developed a strategy for improving service on the Port Jervis Line and making it more attractive to customers. This strategy includes expanding capacity to run more frequent service and to enable reverse and off-peak service increases on this largely single-track line. The project would entail a new storage yard (at Campbell Hall) and three passing sidings along the line. The proposed improvements were discussed at a public meeting in Goshen, Orange County in February 2017.

###### Progress to Date:

Metro-North has completed the PJI Service Strategy Report which details the recommended strategy presented at the February 2017 meeting. The Report and additional project information is available on the MTA's webpage.

###### Upcoming Activities

The next steps for this project involve completing the conceptual engineering efforts and conducting the environmental reviews. Metro-North will issue a Request for Proposals for a consultant to perform these tasks. Approximately \$26 million has been allocated in the MTA Capital Program to complete these efforts, including purchase of property and other planning and preliminary design work. Metro-North anticipates initiating the next phase in mid-2018 and concluding it in 2020.

##### **Penn Station Access (PSA)**

###### Background:

New Metro-North service is being planned on the New Haven Line (NHL) directly to Penn Station New York using Amtrak's existing Hell Gate Line (HGL). This project includes construction of four new passenger stations within the existing rail right of way in areas of Eastern Bronx that are not currently served by regional rail service, in the vicinity of Co-Op City, Morris Park, Parkchester/Van Nest and Hunts Point. The project also includes some infrastructure improvements on the line within the existing right of way and the purchase of rolling stock.

In order to prepare the Environmental Assessment, technical analyses are being prepared to refine prospective operations, confirm the project scope, and determine options for acquiring rolling stock. Working together on these activities, Metro-North is responsible for planning activities and preparing

the Environmental Assessment and MTACC is directing the conceptual engineering and is responsible for design and construction of the project. Amtrak, LIRR and Connecticut Department of Transportation are also involved in this effort.

Progress to Date:

- \$695M in funding towards the PSA project has been programmed in the MTA 2015-2019 Capital Program.
- A high-level agreement was executed between Amtrak, MTA, Metro-North and LIRR to work together to move the project forward through the planning phase.
- An MTA-managed study of potential future operations at Penn Station was performed.
- The Historic Architectural Resources Background Study documentation was finalized and distributed to those who received the Project Initiation Letter, including the FTA, Native American Tribes and the NYC Landmarks Preservation Council.
- Chapters of the Environmental Assessment (EA) and related appendices were drafted and reviewed.
- Metro-North participated in the FRA Northeast Corridor Future Tier 1 EIS.
- Value Capture assessments for selected station areas and comparable case studies were prepared and reviewed for potential co-development/urban realm and public private partnership opportunities.
- Travel Demand Forecasts were refined in order to gain a greater understanding of trip origins and destinations.
- An Operations and Power Simulations consultant was retained with work commencing on operations simulations of potential HGL alignment options, and power readings collected at substations on Metro-North's NHL, Amtrak's HGL, and LIRR infrastructure in Queens.
- Aerial/field Surveys and right-of-way inspections on the HGL were completed and a Conceptual Engineering Report (CER) is being prepared.
- Working Groups have been established and meet regularly to coordinate ongoing work with the major stakeholders, including Metro-North, MTACC, Amtrak, LIRR and CTDOT.
- The Request for Proposals (RFP) for the General Engineering Consultant (GEC) for preliminary design was issued by the MTACC in January 2018.

Upcoming Activities:

- A summary technical report is being prepared for the refined Travel Demand Forecasts.
- Operations and Power Simulations will continue to be collected and analyzed.
- The CER will be completed and will provide a project scope, including track alignments on the HGL, revised project costs and schedules, and a Program Implementation Plan.
- MTACC anticipates award of the GEC contract in the second quarter of 2018.
- Based upon progress made on the conceptual engineering and operations simulations for the HGL alignment options, a redraft of the environmental assessment is commencing.
- MTA will continue to coordinate with CSX Railroad regarding freight needs in the Hell Gate right-of-way.
- Discussions will continue with Amtrak regarding potential alignment options for the HGL right-of-way.



- Metro-North will continue to coordinate with the FRA regarding their NEC Future Tier 1 EIS and NEC Commission.
- Exploration of co-development/urban realm and public private partnership opportunities is ongoing.
- Discussions will continue with CTDOT regarding potential services to be simulated for the NHL.

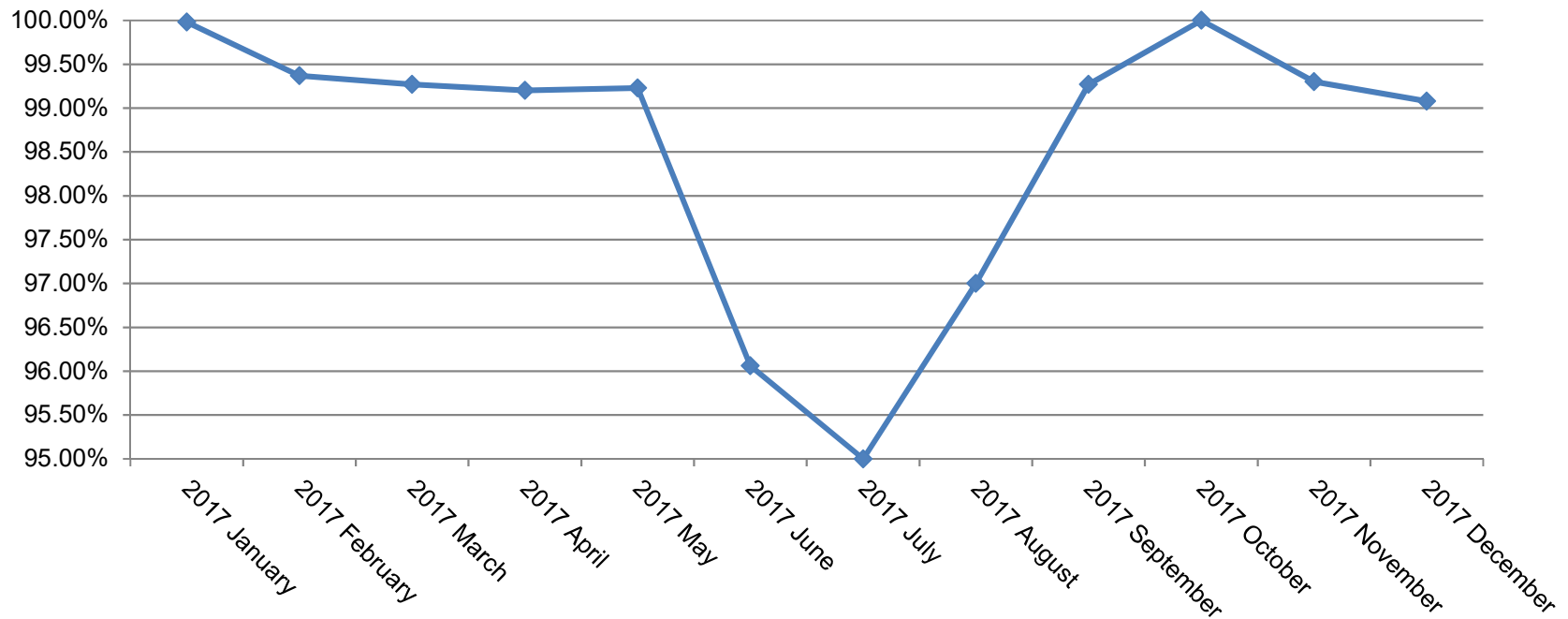
# Metro-North Railroad Elevator/Escalator

**Year-End Report  
2017**



**Metro-North Railroad**

## Passenger Elevator Availability



Definition: Availability measures the percent of time that a unit is running and available for customer service **as of 7:00 AM daily**.

## 2017 Elevator Availability by Station - Hudson Line

Elevator Name	Elevator Number	% Available (Mechanical Failures only)	Elevator Name	Elevator Number	% Available (Mechanical Failures only)
ARDSLEY-ON-HUDSON	026N	100%	HARLEM 125th	002S	100%
ARDSLEY-ON-HUDSON	026S	100%	HASTINGS-ON-HUDSON	022N	100%
BEACON	056I	100%	HASTINGS-ON-HUDSON	022S	100%
COLD SPRING	054N	100%	GRAND CENTRAL TERMINAL	T-6	98%
COLD SPRING	054S	100%	GRAND CENTRAL TERMINAL	T-7	100%
CORTLANDT	043P	100%	GRAND CENTRAL TERMINAL	T-8	100%
CORTLANDT	043I	100%	GRAND CENTRAL TERMINAL	T-9	100%
CORTLANDT	043PW	100%	GRAND CENTRAL TERMINAL	T-10	100%
CROTON-HARMON	3813	100%	GRAND CENTRAL TERMINAL	T-11	100%
CROTON-HARMON	3821	100%	GRAND CENTRAL TERMINAL	T-12	100%
CROTON-HARMON	3842	100%	GRAND CENTRAL TERMINAL	T-18	100%
CROTON-HARMON	038P	100%	GRAND CENTRAL TERMINAL	T-19	100%
DOBBS FERRY	024N	100%	GRAND CENTRAL TERMINAL	T-20	100%
DOBBS FERRY	024S	100%	GRAND CENTRAL TERMINAL	WCL	100%
GARRISON	050N	98%	GRAND CENTRAL TERMINAL NORTH	NE-1	11%
GARRISON	050S	100%	GRAND CENTRAL TERMINAL NORTH	NE-2	100%
GLENWOOD	018N	100%	GRAND CENTRAL TERMINAL NORTH	NE-3	100%
GLENWOOD	018S	100%	GRAND CENTRAL TERMINAL NORTH	NE-5	100%
GREYSTONE	020N	100%	GRAND CENTRAL TERMINAL NORTH	NE-6	100%
GREYSTONE	020S	100%			
HARLEM 125th	002N	99%			



## 2017 Elevator Availability by Station - Hudson Line

Elevator Name	Elevator Number	% Available (Mechanical Failures only)	Elevator Name	Elevator Number	% Available (Mechanical Failures only)
MORRIS HEIGHTS	004I	100%	RIVERDALE	012S	100%
OSSINING	3624	100%	SCARBOROUGH	034N	100%
OSSINING	363	100%	SCARBOROUGH	034S	100%
OSSINING	036N	100%	TARRYTOWN	030N	100%
OSSINING	036R	100%	TARRYTOWN	030S	100%
PEEKSKILL	046N	100%	UNIVERSITY HEIGHTS	006N	100%
PEEKSKILL	046S	100%	YANKEES - E. 153RD STREET	321	100%
POUGHKEEPSIE	058N	100%	YANKEES - E. 153RD STREET	364	100%
POUGHKEEPSIE	058PE	100%	YANKEES - E. 153RD STREET	003P	100%
POUGHKEEPSIE	058PW	100%	YANKEES - E. 153RD STREET	003W	100%
POUGHKEEPSIE	058S	100%	YONKERS	016N	100%
RIVERDALE	012N	100%	YONKERS	016S	100%



## 2017 Elevator Availability by Station - Harlem Line

Elevator Name	Elevator Number	% Available (Mechanical Failures only)	Elevator Name	Elevator Number	% Available (Mechanical Failures only)
BEDFORD HILLS	152P	100%	HAWTHORNE	142I	99%
BEDFORD HILLS	152I	100%	KATONAH	154P	100%
BOTANICAL GARDEN	110N	100%	KATONAH	154I	100%
BOTANICAL GARDEN	110S	100%	MOUNT KISCO	150P	100%
BREWSTER	162P	100%	MOUNT KISCO	150I	96%
BREWSTER	162I	100%	MOUNT VERNON WEST	118N	100%
CHAPPAQUA	148P	100%	MOUNT VERNON WEST	118S	100%
CHAPPAQUA	148I	100%	NORTH WHITE PLAINS	134N	100%
CRESTWOOD	126N	100%	NORTH WHITE PLAINS	134P	100%
CRESTWOOD	126P	100%	NORTH WHITE PLAINS	134S	100%
CRESTWOOD	126S	100%	PLEASANTVILLE	146I	100%
CROTON FALLS	160P	100%	PURDYS	158P	100%
CROTON FALLS	160I	100%	PURDYS	158I	100%
FLEETWOOD	120N	100%	SCARSDALE	128N	100%
FLEETWOOD	120S	100%	SOUTHEAST	163P	100%
FORDHAM	108N	100%	SOUTHEAST	163I	100%
FORDHAM	108S	100%	TUCKAHOE	124N	100%
GOLDENS BRIDGE	156P	100%	VALHALLA	136P	100%
GOLDENS BRIDGE	156I	100%	VALHALLA	136I	100%
HAWTHORNE	142P	100%	WHITE PLAINS	132I	100%



## 2017 Elevator Availability by Station - New Haven Line

Elevator Name	Elevator Number	% Available (Mechanical Failures)
GREENWICH	218E	100%
GREENWICH	218T	100%
GREENWICH	218W	99%
HARRISON	212E	100%
HARRISON	212W	100%
LARCHMONT	208E	100%
LARCHMONT	208W	100%
MOUNT VERNON EAST	202E	100%
MOUNT VERNON EAST	202W	100%
NEW ROCHELLE	206E	100%
NEW ROCHELLE	206W	100%
RYE	214E	100%
RYE	214W	100%

These are the only elevators Metro-North maintains on the New Haven Line.



## 2017 Escalator Availability

Escalator Number	Escalator Location	% Available	Escalator Number	Escalator Location	% Available
1	West Side near Transit Museum	87%	NE-8	47th ST Cross Passage to East Spine	71%
2	West Side near Transit Museum	100%	NE-9	East Spine to 48th ST and Park	100%
3	East Side near Market	100%	NE-10	45th ST Cross Passage to West Spine	100%
4	East Side near Market	100%	NE-11	47th ST Cross Passage to 47th and Madison	100%
5	East Side near Market	100%	NE-12	245 Park Ave	100%
6	East Side near Market	90%	N	White Plains	100%
NE-7	45th ST Cross Passage to East Spine	100%	S	White Plains	100%

### Notes:

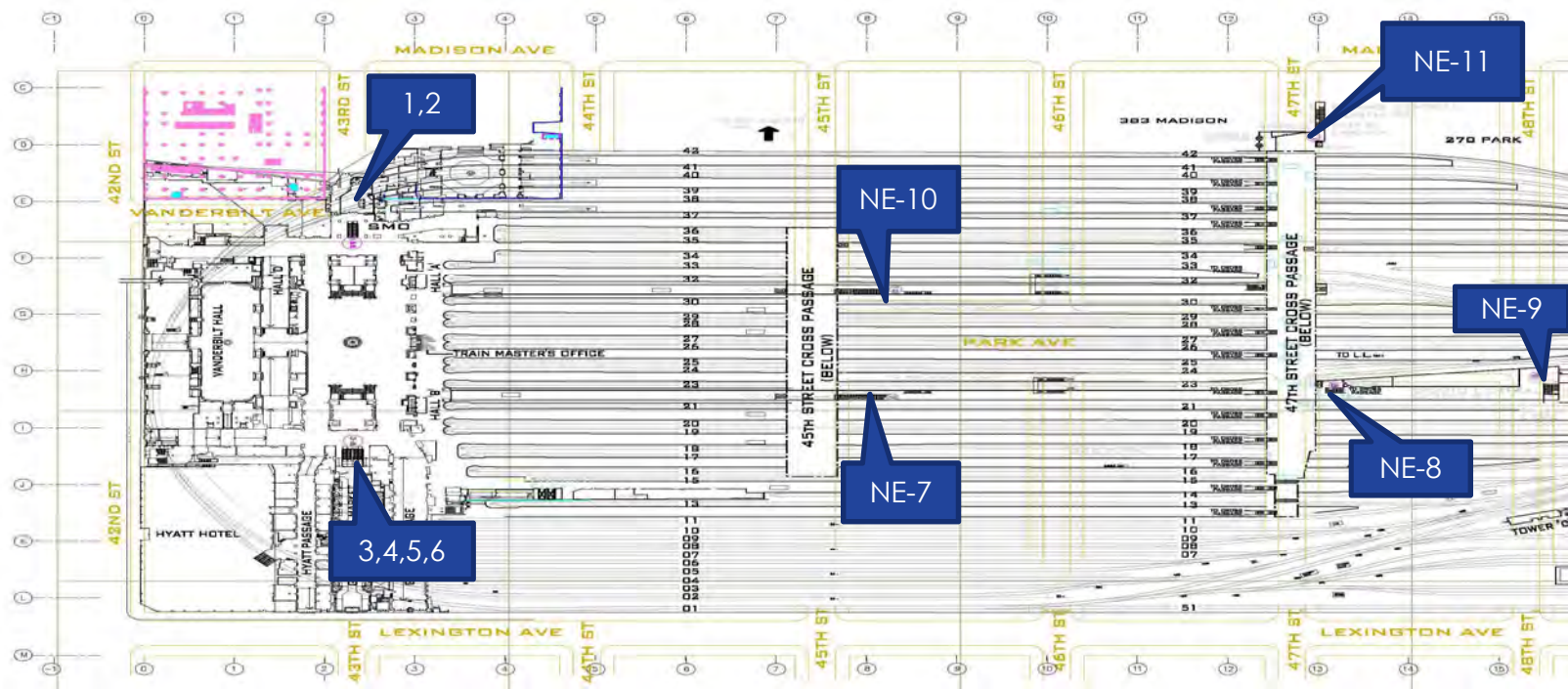
- (a) Escalator 1 was taken out of service for motor repair on 9/30/17. It was returned to service on 11/20/17.
- (b) Escalator 6 was taken out of service on 2/12/17 & 10/1/17 for repair to the step track. It was returned to service on 2/23/17 & 10/9/17 respectively.
- (c) Escalator 8 was taken out of service on 11/9/17 for motor and gearbox repair. It was returned to service on 2/11/18.

Availability percentages exclude time escalators are out of service for planned long-term repair.





# Grand Central Escalator Map



# 2017 Elevator Customer Injuries/Entrapments by Station

Station Name	Mechanical (Injury)	Human Factor (Injury)	Entrapment
GCT	0	0	12
MOUNT VERNON EAST	0	0	1
GREYSTONE	0	0	3
LARCHMONT	0	0	1
NORTH WHITE PLAINS	0	0	6
STAMFORD	0	0	7
FORDHAM	0	0	5
PEEKSKILL	0	0	1
YANKEES - E 153RD	0	0	1
MOUNT KISCO	0	0	2
HARRISON	0	0	3
COLD SPRING	0	0	1
CHAPPAQUA	0	0	1
PURDYS	0	0	1



2017

## Elevator Customer Injuries/Entrapments by Station

Station Name	Mechanical (Injury)	Human Factor (Injury)	Entrapment
TARRYTOWN	0	0	2
NEW HAVEN	0	0	2

**Definitions:**

**Mechanical** includes sudden changes in speed, handrail, alignment. **Human Factor** includes lost balance, encumbrances, slip/trip/fall, pushed/shoved, intoxication, caught between, etc. **Entrapment** includes failure of the elevator to move to a floor landing. The customer is uninjured but needs assistance from an outside party (i.e. MNR employee or MTA PD officer) to exit the elevator cab.



## 2017 Escalator Customer Injuries by Station

Station Name	Mechanical	Human Factor
GCT	0	7
STAMFORD	0	2

### Definitions:

**Mechanical** includes sudden changes in speed, handrail, alignment. **Human Factor** includes lost balance, encumbrances, slip/trip/fall, pushed/shoved, intoxication, caught between, etc. **Entrapment** includes failure of the elevator to move to a floor landing. The customer is uninjured but needs assistance from an outside party (i.e. MNR employee or MTA PD officer) to exit the elevator cab.

**Please note:** These numbers are subject to change based upon additional customer injury reports and claims that may be received after the reporting period end date of December 31, 2017.



# 2017 Customer Satisfaction Survey

## Metro-North Railroad



# Overall Context

- Metro-North's 2017 Customer Satisfaction Survey was conducted in June 2017 among 5,793 East of Hudson and 437 West of Hudson customers.
- During the year since the previous customer survey, the railroad continued to follow its strategic vision to become a better railroad through the development and implementation of programs which focus on its employees, its customers and its infrastructure.
- Prior research has demonstrated a strong connection between customer satisfaction and on-time performance. Through the first four months of 2017, Metro-North was exceeding its annual OTP goal of 93% on all three East of Hudson Lines.
- However, in the six week period leading up to the 2017 survey, several incidents negatively impacted OTP, particularly affecting the New Haven Line. By the end of June, New Haven Line OTP had fallen just below goal.
- A six percent Connecticut fare increase went into effect in December 2016. Historically, fare increases have had a negative effect on satisfaction ratings .



# Key Findings

- After increasing by 17 points between 2014 and 2016, satisfaction with Metro-North overall among customers of the three East of Hudson lines stabilized in 2017. 89% of customers were satisfied with the railroad, down from 90% the year before. Such a small difference can sometimes be the result of routine rounding to the nearest whole number rather than an actual change in satisfaction.
- Five of the seven major service categories received lower satisfaction scores by a percentage point or two.
- On-Time Performance, a key driver of customer satisfaction, was one of two categories whose satisfaction level fell by two points (78% satisfied versus 80% in 2016). The only other category to decline as much was Train Service Overall (87% satisfied in 2017; 89% the year before).
- Frontline employees and Grand Central Terminal continued to please the vast majority of customers. Both categories received 95% satisfied scores in 2017.
- Customer satisfaction with the railroad among Reverse Peak customers dropped 6 points to 88%.
- Among West of Hudson AM Peak customers, satisfaction fell to 81% compared to 83% in 2016, attributable to issues making connections to/from Penn Station NY.



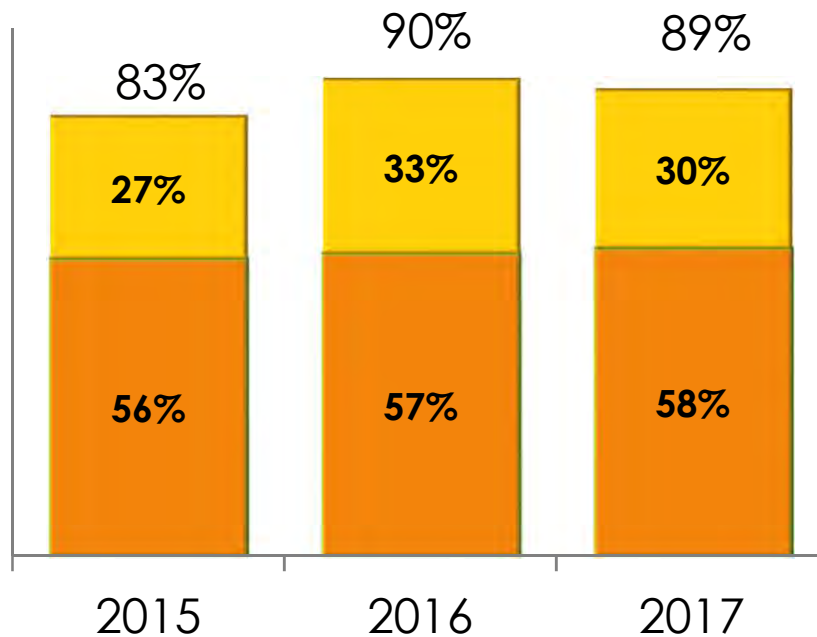
# METRO-NORTH EAST OF HUDSON SURVEY RESULTS



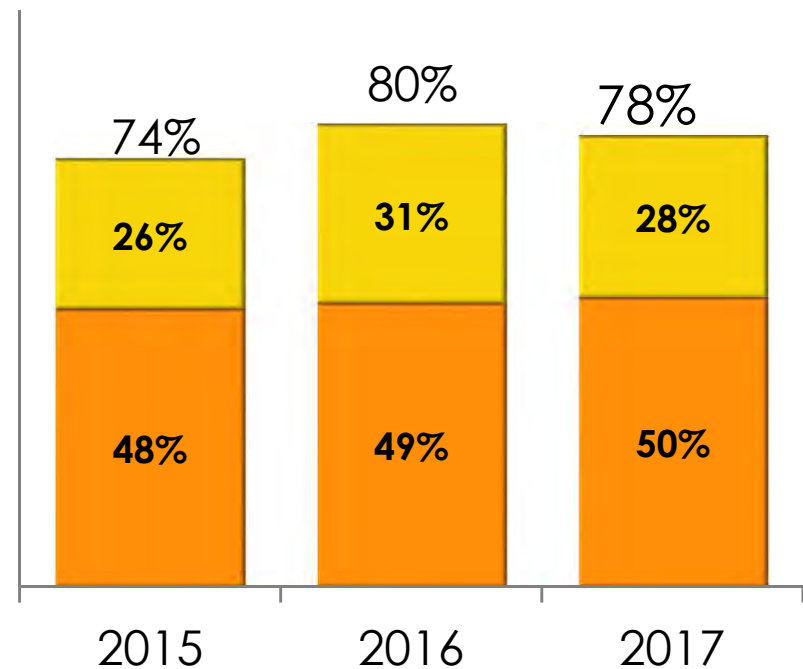


# MNR Overall Customer Satisfaction

## Metro-North Overall



## On-Time Performance



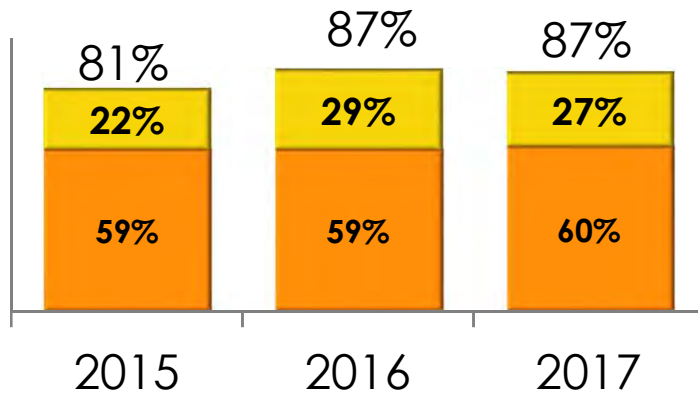
Top Area = Very Satisfied/Bottom Area = Satisfied

Very Satisfied + Satisfied may not equal total due to rounding

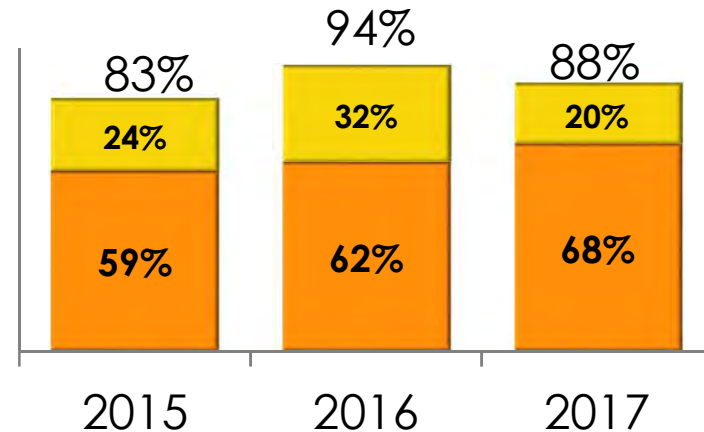


## MNR Overall Customer Satisfaction by Time Period

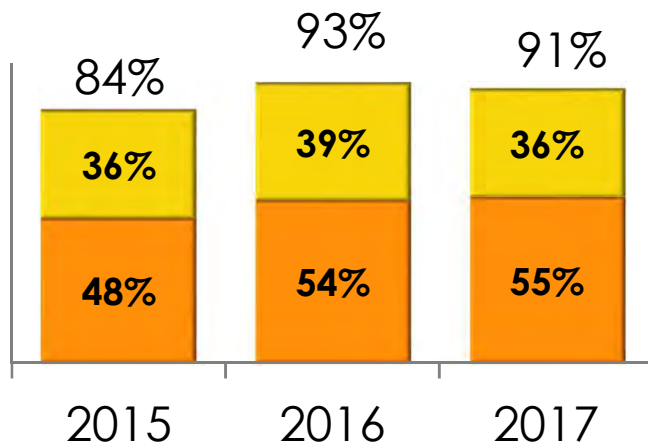
Peak



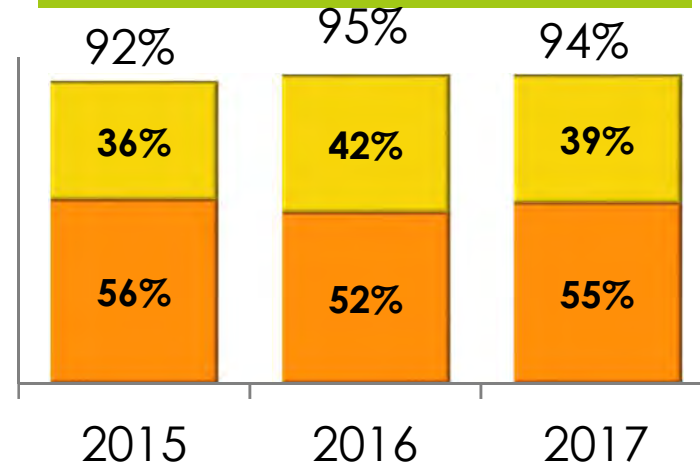
Reverse Peak



Weekday Off-Peak



Weekend Off-Peak



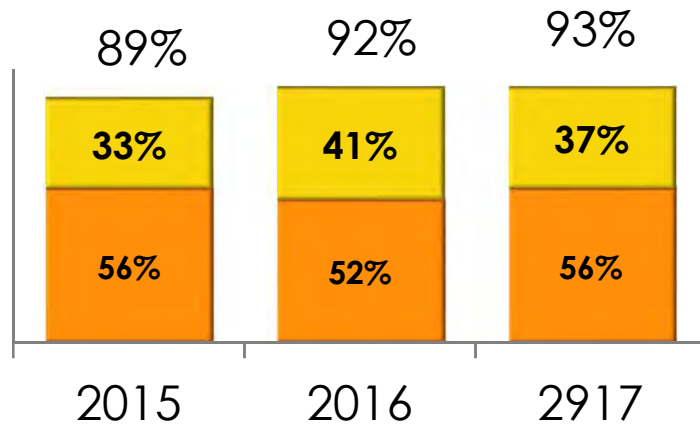
Top Area = Very Satisfied/Bottom Area = Satisfied

Very Satisfied + Satisfied may not equal total due to rounding

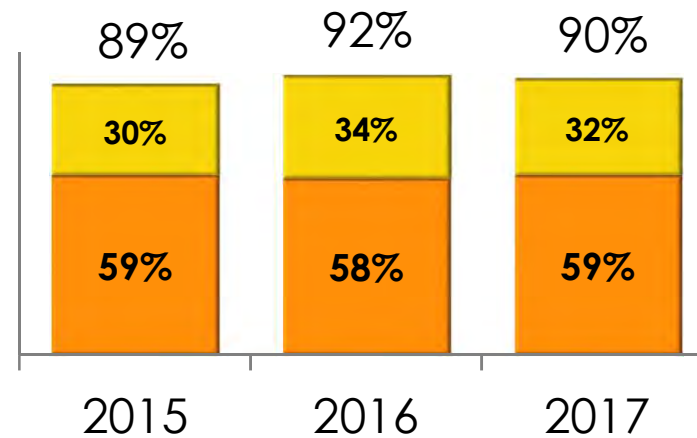


# MNR Overall Customer Satisfaction By Line

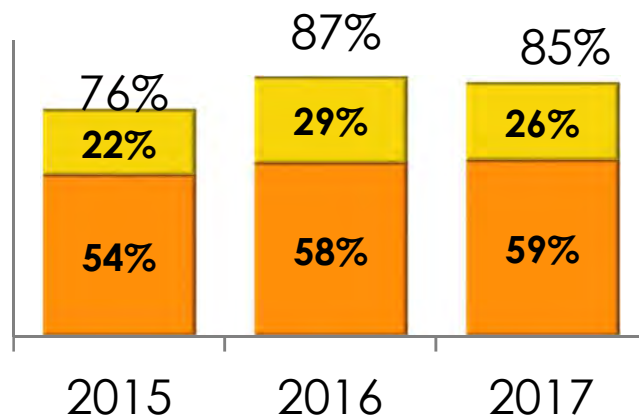
Hudson



Harlem



New Haven



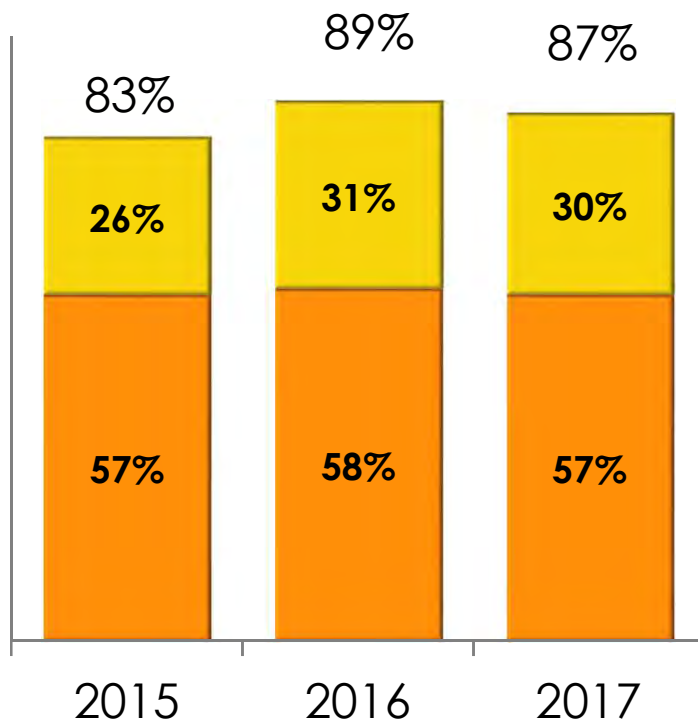
Top Area = Very Satisfied/Bottom Area = Satisfied

Very Satisfied + Satisfied may not equal total due to rounding

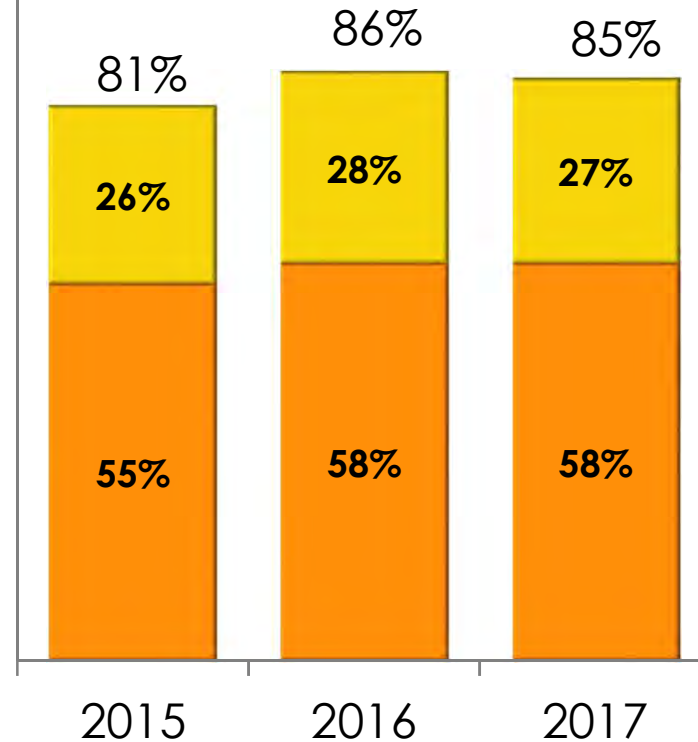


## MNR Train Service and Scheduling

Train Service Overall



Overall Train Schedules



Top Area = Very Satisfied/Bottom Area = Satisfied

Very Satisfied + Satisfied may not equal total due to rounding

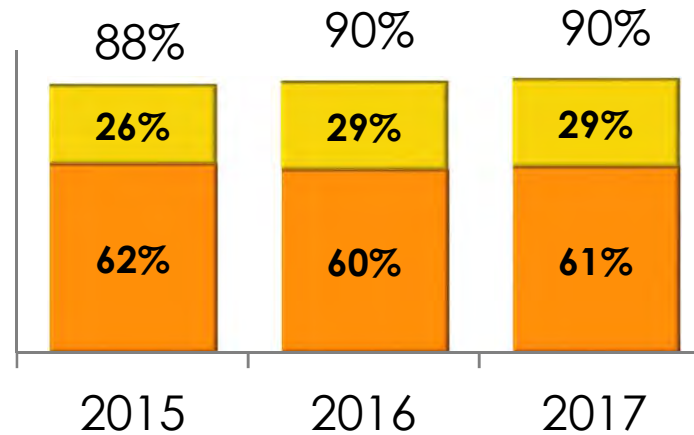


# MNR Overall Communication

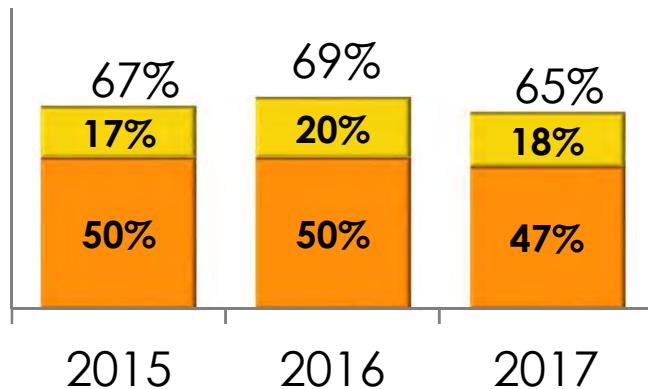
Overall Communication



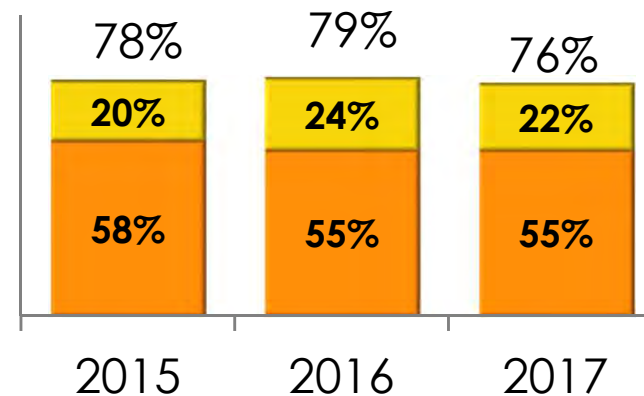
During Normal Service Conditions



During Unplanned Service Disruptions



During Scheduled (Planned) Service Disruptions



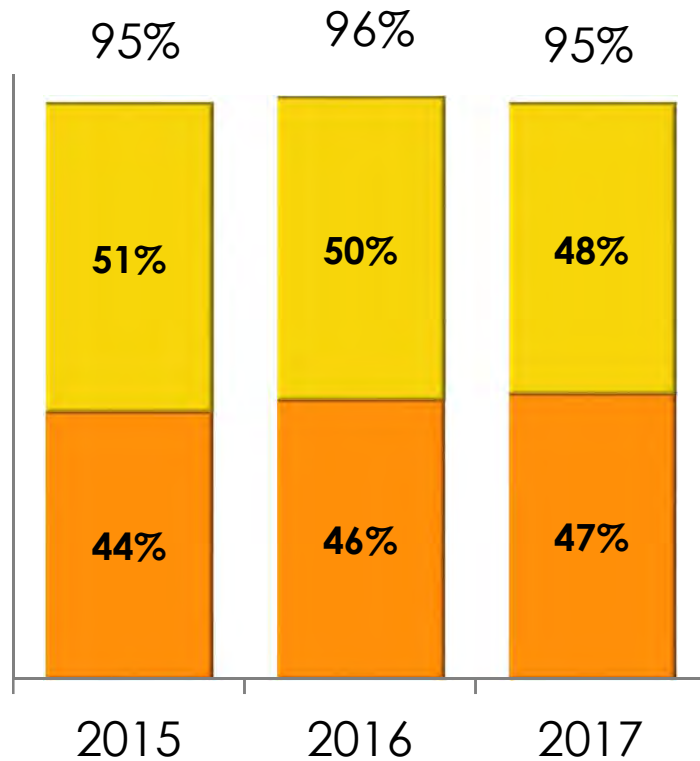
Top Area = Very Satisfied/Bottom Area = Satisfied

Very Satisfied + Satisfied may not equal total due to rounding

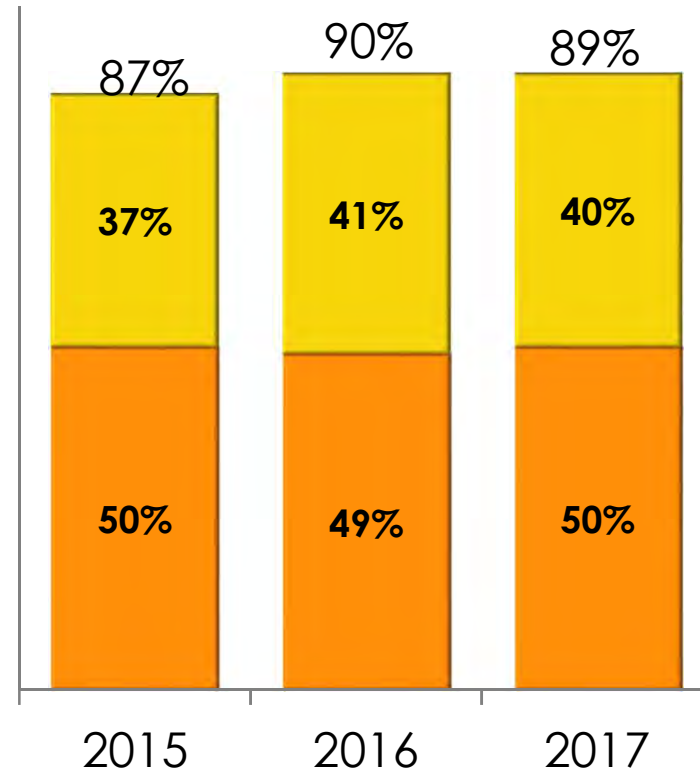


# Grand Central Terminal and Boarding Stations

GCT Overall



Home Boarding Station Overall



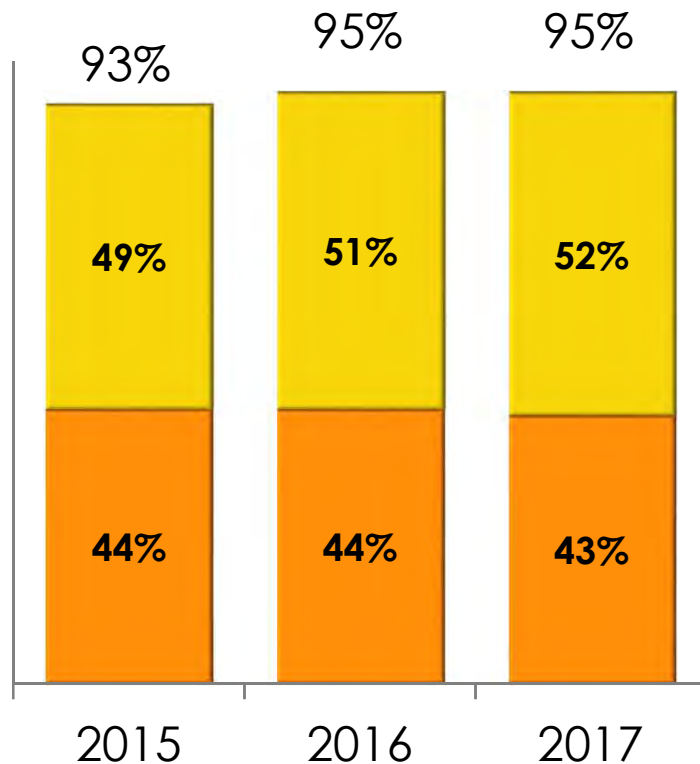
Top Area = Very Satisfied/Bottom Area = Satisfied

Very Satisfied + Satisfied may not equal total due to rounding

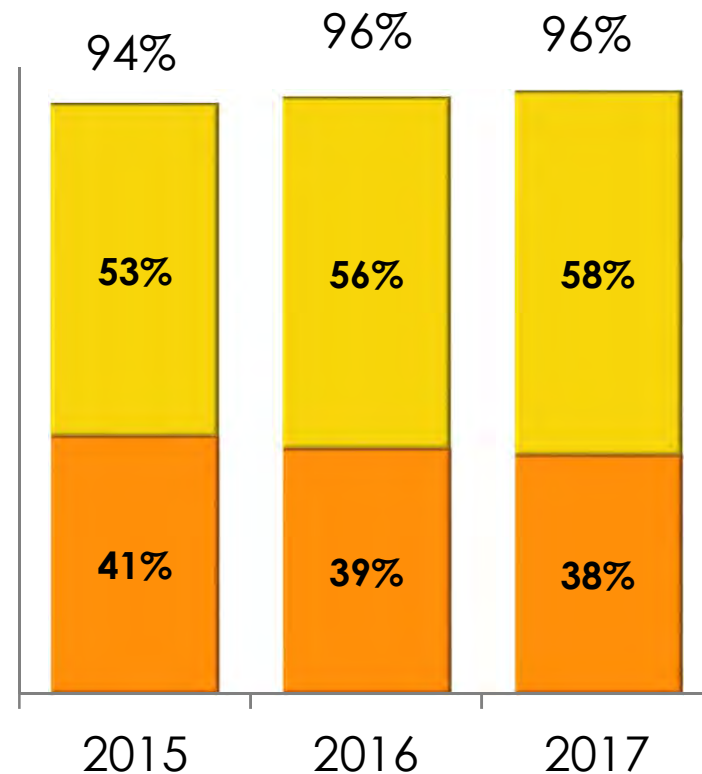


## MNR Employees – Courtesy and Responsiveness

Overall Employees



Conductors



Top Area = Very Satisfied/Bottom Area = Satisfied

Very Satisfied + Satisfied may not equal total due to rounding



# East of Hudson: Overview

In addition to the 7 major categories, the 2017 Customer Satisfaction Survey asked customers to rate their satisfaction with specific characteristics of service.

62 of these characteristics were also included on the 2016 survey.

- 5 characteristics improved.
- 19 characteristics remained the same.
- 38 characteristics declined.

Survey results for all characteristics are contained in the Appendix.





# EAST OF HUDSON REVERSE PEAK SURVEY RESULTS



# Reverse Peak: Overview

In addition to the 7 major categories, the 2017 Customer Satisfaction Survey asked customers to rate their satisfaction with specific characteristics of service.

62 of these characteristics were also included on the 2016 survey.

- 19 characteristics improved.
- 7 characteristics remained the same.
- 36 characteristics declined.

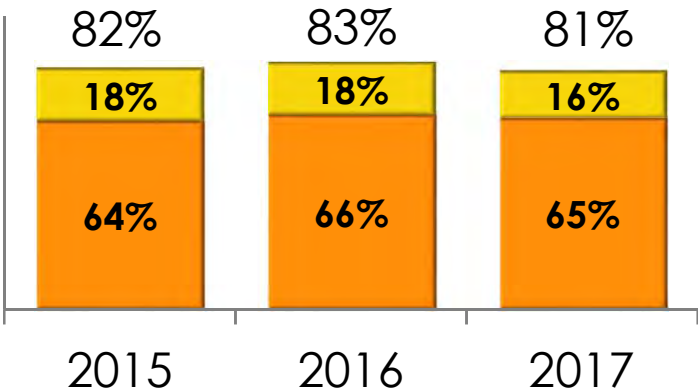


# WEST OF HUDSON SURVEY RESULTS

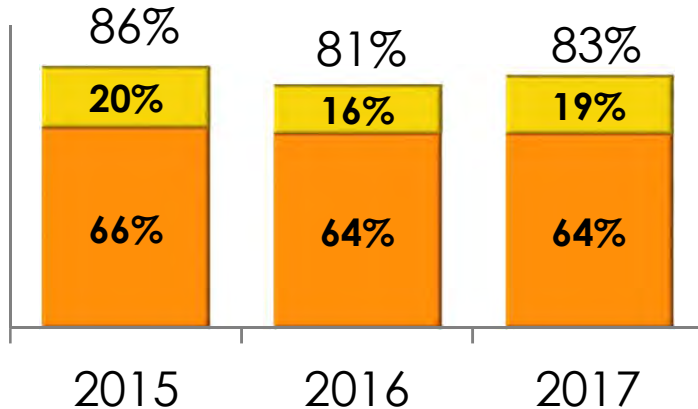


# MNR Overall Customer Satisfaction

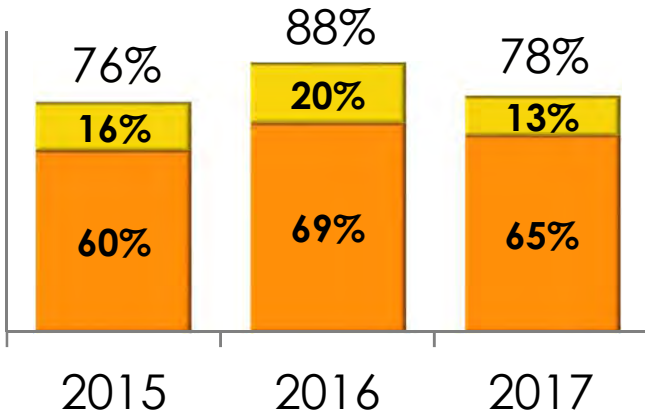
West of Hudson Total



Port Jervis



Pascack Valley



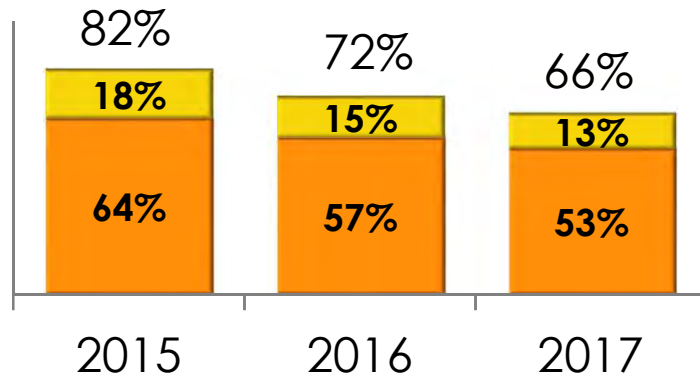
Top Area = Very Satisfied/Bottom Area = Satisfied

Very Satisfied + Satisfied may not equal total due to rounding

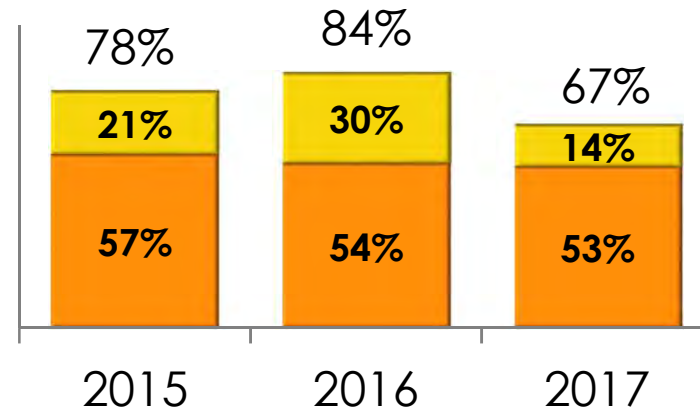


# MNR Train Service By Line: West of Hudson

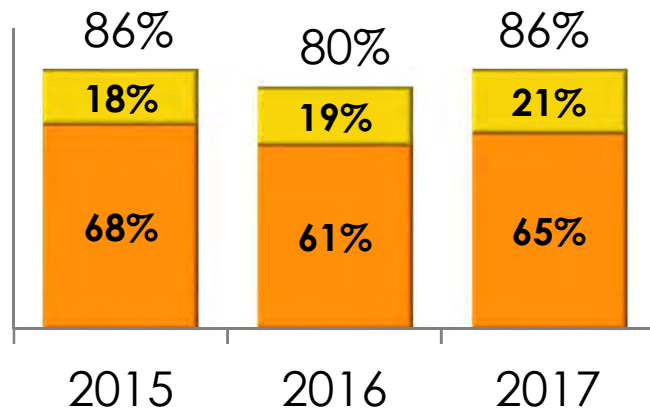
On-Time Performance – Port Jervis



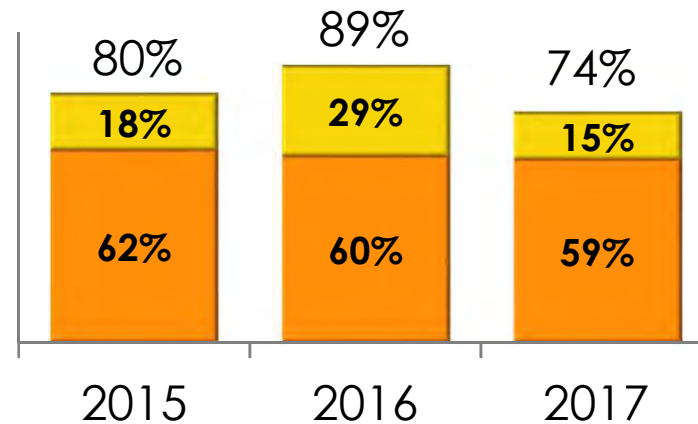
On-Time Performance – Pascack Valley



MNR Train Service Overall – Port Jervis



MNR Train Service Overall – Pascack Valley



Top Area = Very Satisfied/Bottom Area = Satisfied

Very Satisfied + Satisfied may not equal total due to rounding



# West of Hudson: Overview

In addition to the 8 major categories, the 2017 Customer Satisfaction Survey asked customers to rate their satisfaction with specific characteristics of service.

58 of these characteristics were also included on the 2016 survey.

- 7 characteristics improved.
- 13 characteristics remained the same.
- 38 characteristics declined.

Survey results for all characteristics are contained in the Appendix.



# Appendix

- Methodology
- Full Set of Attribute Ratings:
  - East of Hudson
  - West of Hudson
- Questionnaires



# Methodology

- The MNR survey used an onboard distribution methodology among a sample of trains.
- A total of 5,732 East of Hudson and 437 West of Hudson surveys were completed and tabulated, as follows:

	East of Hudson Survey					West of Hudson
	Total	AM Peak	Off-Peak	Weekend	Reverse Peak	AM Peak
Completed Surveys	5,732	2,534	936	1,818	444	437
Survey dates		6/21 -6/28	6/21-6/28	6/24-6/25	6/21-6/28	10/25-10/26
Trains sampled	126	40	39	26	11	10





# **SERVICE ATTRIBUTE RATINGS**

## **East of Hudson**

### **2013-2017**



EAST OF HUDSON	TOTAL SATISFIED				
	2013	2014	2015	2016	2017
	%	%	%	%	%
1. Metro-North Railroad overall	93	73	83	90	89
2. Value for the money using the railroad	73	59	64	73	69
Home Boarding Station					
3. Your home boarding station overall	89	87	87	90	89
4. Directional signage to the station	89	87	88	89	89
5. Personal security	86	87	86	81	81
6. Cleanliness inside the station building (excluding restrooms)	86	84	84	85	85
7. Maintenance of the station	87	84	85	87	92
8. Sound quality of audio announcements	75	71	77	77	76
9. Availability of parking on weekdays	70	67	66	69	66
10. Security of your car while parked at the station	88	88	88	91	89
11. Maintenance of station and platforms during snow/ice events	N/A	N/A	N/A	89	86
12. Safety condition at station at all other times	N/A	N/A	N/A	N/A	92
13. Cleanliness of platforms and outdoor shelters	88	85	86	90	88
14. Cleanliness of the track area around the station	83	80	80	84	84



EAST OF HUDSON	TOTAL SATISFIED				
	2013	2014	2015	2016	2017
	%	%	%	%	%
<b>On Trains (AM &amp; PM)</b>					
15. MNR train service overall	91	72	83	89	87
16. On-time performance	86	58	74	80	78
17. The safe operation of the train	N/A	N/A	78	91	96
18. Availability of seats on train	77	69	67	76	73
19. Condition of seats on train	N/A	N/A	82	87	86
20. The temperature on the train	87	84	85	89	89
21. Personal security	95	93	92	92	92
22. Cleanliness of the restrooms	66	68	66	68	66
23. Cleanliness of train's interior (excluding restrooms)	83	81	83	86	86
24. Sound quality of audio announcements	81	79	79	82	80
25. Train interior maintenance – lights, floors, windows, etc. (excluding seats)	N/A	N/A	88	91	91
26. Quiet Car Program	84	87	80	83	87



EAST OF HUDSON	TOTAL SATISFIED				
	2013	2014	2015	2016	2017
	%	%	%	%	%
<b>Courtesy and Responsiveness of Our Employees</b>					
27. The overall courtesy and responsiveness of our employees	95	92	93	95	95
28. Conductors	96	93	94	96	96
29. Ticket Sellers	91	89	90	93	92
30. Customer Service Representatives (ushers) in GCT	92	89	91	92	91
31. Information booth and Station Master's Office Personnel at GCT	92	90	91	93	92
32. Telephone Information Center Representatives	91	86	87	86	84
33. Professional Appearance of Conductors	96	94	94	97	97
34. MTA Police	N/A	N/A	92	94	94



EAST OF HUDSON	TOTAL SATISFIED				
	2013	2014	2015	2016	2017
	%	%	%	%	%
<b>Train Scheduling</b>					
35. Overall schedule of trains	89	77	81	86	85
36. The weekday AM and PM peak schedule to and from your station	88	76	79	85	85
37. The weekday off-peak schedule to and from your station (including late night train service)	84	78	81	83	82
38. The weekend schedule to and from your station	85	79	81	83	82
<b>Communication</b>					
39. Overall communication to you	91	78	84	86	86
40. Overall communication during normal service conditions	93	85	88	90	90
41. Our overall communications during <u>scheduled</u> service disruptions (alternative busing, etc.)	84	69	78	79	76
42. Overall communications during <u>unplanned</u> service disruptions	76	56	67	69	65



EAST OF HUDSON	TOTAL SATISFIED				
	2013	2014	2015	2016	2017
	%	%	%	%	%
<b>Communication (During Normal Service Conditions)</b>					
43. Real time train information at your home boarding station	N/A	N/A	N/A	82	82
44. Other communication at your home boarding station	N/A	N/A	N/A	84	83
45. On board our trains	90	82	85	87	86
46. At GCT	92	84	86	89	88
47. On our website (www.mta.info)	90	81	86	87	82
48. Via our email alerts (if you subscribe)	N/A	81	85	87	86
49. Via our social media sites (on Facebook and Twitter)	NA	79	82	82	80
50. Through the Train Time Mobile App. (if used)	N/A	79	85	86	83
51. With the Automated Phone System (Schedules, Fares, etc.)	88	78	82	83	83
52. With Customer Service Center Representatives	87	77	81	83	81



EAST OF HUDSON	TOTAL SATISFIED				
	2013	2014	2015	2016	2017
	%	%	%	%	%
Communication (During Unplanned Service Disruptions)					
53. Real time train information at your home boarding station	N/A	N/A	N/A	70	68
54. Other communication at your home boarding station	N/A	N/A	N/A	73	71
55. On board our trains	78	63	71	78	75
56. At GCT	79	65	72	78	76
57. On our website (www.mta.info)	80	67	75	79	75
58. Through the "Service Status" box on our website	81	67	76	79	77
59. Via our e-mail alerts (if you subscribe)	85	69	79	80	80
60. Via our social media sites (on Facebook and Twitter)	N/A	68	75	77	74
61. Through the Train Time Mobile App (if used)	N/A	70	76	78	76
62. With the automated phone system for schedules, fares, etc.	84	71	76	79	79
63. With Customer Services Center representatives	84	70	75	78	77



<b>EAST OF HUDSON</b>	<b>TOTAL SATISFIED</b>				
	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>
<b>Grand Central Terminal (GCT)</b>					
<b>64. Grand Central Terminal overall</b>	<b>97</b>	<b>96</b>	<b>95</b>	<b>96</b>	<b>95</b>
<b>65. The Station Master's Office, including the customer waiting area</b>	<b>93</b>	<b>91</b>	<b>91</b>	<b>93</b>	<b>92</b>
<b>66. Personal security</b>	<b>96</b>	<b>93</b>	<b>94</b>	<b>93</b>	<b>94</b>
<b>67. Presence of MTA police</b>	<b>95</b>	<b>91</b>	<b>94</b>	<b>94</b>	<b>94</b>
<b>68. Sound quality of audio announcements</b>	<b>86</b>	<b>81</b>	<b>78</b>	<b>83</b>	<b>83</b>
<b>69. Cleanliness of GCT (excluding restrooms)</b>	<b>94</b>	<b>92</b>	<b>90</b>	<b>90</b>	<b>91</b>
<b>70. Cleanliness of restrooms in GCT</b>	<b>70</b>	<b>64</b>	<b>63</b>	<b>65</b>	<b>64</b>
<b>71. Physical condition of restrooms</b>	<b>N/A</b>	<b>N/A</b>	<b>65</b>	<b>66</b>	<b>64</b>





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# **SERVICE ATTRIBUTE RATINGS**

## **West of Hudson**

### **2013-2017**



WEST OF HUDSON	TOTAL SATISFIED				
	2013	2014	2015	2016	2017
	%	%	%	%	%
1. Metro-North Railroad overall	88	88	82	83	81
2. Value for the money using the railroad	64	73	66	71	59
Home Boarding Station					
3. Your home boarding station overall	91	90	89	92	90
4. Directional signage to the station	88	89	86	88	88
5. Personal security	84	86	83	84	79
6. Cleanliness inside the station building (excluding restrooms)	81	84	83	86	81
7. Maintenance of the station	83	84	84	88	89
8. Sound quality of audio announcements	61	54	51	49	47
9. Availability of parking on weekdays	94	95	93	96	93
10. Security of your car while parked at the station	91	92	89	92	92
11. Maintenance of station and platforms during snow/ice events	N/A	N/A	N/A	81	71
12. Cleanliness of platforms and outdoor shelters	86	88	88	89	85
13. Cleanliness of the track area around the station	86	88	85	88	85
14. Safety conditions at station at all other times	N/A	N/A	N/A	N/A	89



WEST OF HUDSON	TOTAL SATISFIED				
	2013	2014	2015	2016	2017
	%	%	%	%	%
<b>On Trains (AM &amp; PM)</b>					
15. MNR train service overall	87	89	84	84	81
16. On-time performance	87	86	81	77	67
17. Safety from accidents	N/A	N/A	94	93	88
18. Availability of seats on train	87	85	86	83	76
19. Condition of seats on train	N/A	N/A	88	87	81
20. The temperature on the train	86	88	86	87	88
21. Personal security	94	97	95	96	93
22. Cleanliness of the restrooms	68	67	66	64	66
23. Cleanliness of train's interior (excluding restrooms)	86	89	90	90	87
24. Sound quality of audio announcements	74	75	74	75	65
25. Train interior maintenance – lights, floors, windows, etc. (excluding seats)	N/A	N/A	85	89	88
26. Quiet Commute Program	N/A	91	87	90	90



WEST OF HUDSON	TOTAL SATISFIED				
	2013	2014	2015	2016	2017
	%	%	%	%	%
<b>Courtesy and Responsiveness of Our Employees</b>					
27. The overall courtesy and responsiveness of our employees	93	95	92	94	90
28. Conductors	96	96	94	94	94
29. Ticket Sellers	88	95	92	92	92
30. Metro-North Telephone Information Center representatives (In NY: 511)	71	81	78	82	79
31. MTA Police	N/A	N/A	93	92	90
<b>Train Scheduling</b>					
32. Overall train schedules	65	64	62	65	65
33. The weekday AM and PM peak schedule to and from your station	67	71	65	70	70
34. The weekday off-peak schedule to and from your station including late night service	51	51	49	51	51
35. The weekend schedule to and from your station	57	57	51	52	51
36. Connections to trains to/from NY Penn Station	N/A	N/A	N/A	N/A	70



WEST OF HUDSON	TOTAL SATISFIED				
	2013	2014	2015	2016	2017
	%	%	%	%	%
<b>Communication</b>					
37. Overall communication to you	82	76	76	72	74
38. Overall communication during normal service conditions	86	82	83	80	80
39. Overall communications during <u>unplanned</u> service disruptions	68	58	57	54	54
<b>Communication during normal service conditions</b>					
40. At your boarding station	73	72	69	65	64
41. On board our trains	83	84	83	79	78
42. At Hoboken Terminal	79	81	78	77	77
43. At Secaucus Junction	87	84	83	80	79
44. At Penn Station New York	76	71	69	69	71
45. On the Metro-North website (www.mta.info)	84	82	82	82	83
46. On the NJ Transit website (www.njtransit.com)	87	83	83	82	82
47. Metro-North's social media sites (Facebook, Twitter)	N/A	78	75	76	71
48. With Metro-North's automated phone system for schedules, fares, etc.	76	77	71	70	71
49. With Metro-North's Customer Service Center Representatives	70	69	71	74	71
50. With NJ Transit's automated phone system for schedules, fares, etc.	72	70	66	73	65
51. With NJ Transit's Travel Information Center Representatives	74	70	72	77	67



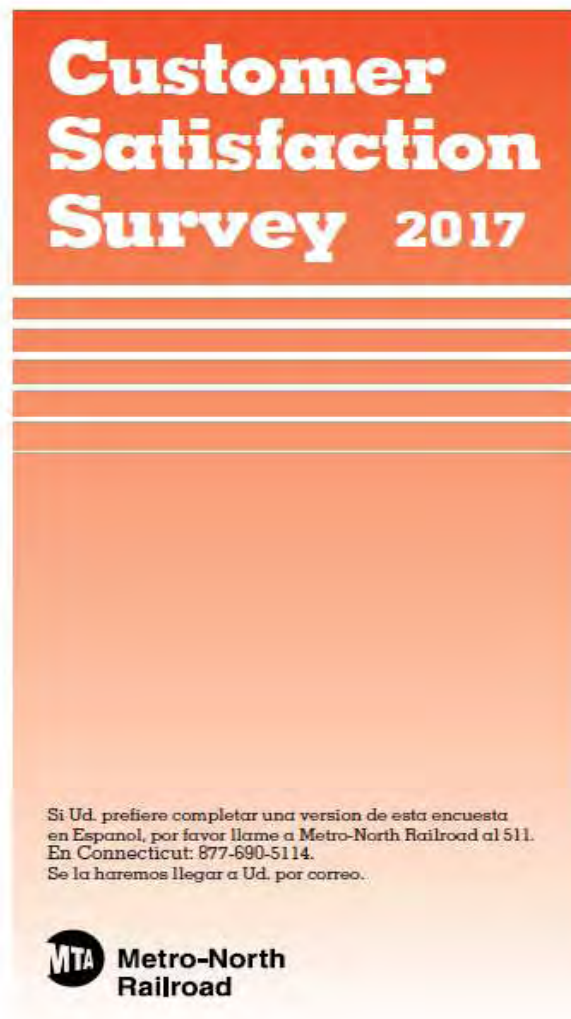
WEST OF HUDSON	TOTAL SATISFIED				
	2013	2014	2015	2016	2017
	%	%	%	%	%
<b>Communication (During Unplanned Service Disruptions)</b>					
52. At your boarding station	58	52	53	49	51
53. On board our trains	74	72	65	66	67
54. At Hoboken Terminal	67	68	65	66	66
55. At Secaucus Junction	75	68	71	72	69
56. At Penn Station New York	65	60	65	60	62
57. In the "Service Status" box on the Metro-North website	77	70	72	71	71
58. With Metro-North's automated phone system for schedules, fares, etc.	66	69	77	67	65
59. With Metro-North's Customer Service Center Representatives	69	69	78	71	67
60. On the NJ Transit website (www.njtransit.com)	78	75	79	78	68
61. With NJ Transit's automated phone system for schedules, fares, etc.	70	67	71	71	64
62. With NJ Transit's Telephone Information Center Representatives	69	69	74	68	62



WEST OF HUDSON	TOTAL SATISFIED				
	2013	2014	2015	2016	2017
	%	%	%	%	%
<b>Hoboken Terminal</b>					
63. Hoboken Terminal Overall	63	83	80	75	74
64. Personal Security in Hoboken Terminal	89	90	84	85	82
65. Cleanliness of restrooms	51	72	72	57	53
66. Physical condition of restrooms	N/A	N/A	73	57	55
67. Cleanliness of the Terminal (excluding restrooms)	72	85	81	77	78
68. Connections to PATH/Ferry	N/A	N/A	N/A	N/A	85
<b>Secaucus Junction</b>					
69. Secaucus Junction Overall	93	94	84	89	89
70. Personal Security	96	99	92	95	92



# East of Hudson Questionnaire



**Customer  
Satisfaction  
Survey 2017**

Si Ud. prefiere completar una version de esta encuesta en Espanol, por favor llame a Metro-North Railroad al 511. En Connecticut: 877-690-5114. Se la haremos llegar a Ud. por correo.

**MTA** Metro-North  
Railroad





## Dear MTA Metro-North Customer:

Thank you for riding Metro-North today. To help us find out if your recent travel on Metro-North has been as convenient and comfortable as we would like it to be, please take some time to complete this survey. Your input will let us know what we need to do to improve your experience on our trains and at our stations.

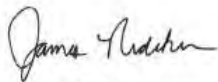
When you have completed the survey, please return it to our representative on your train today or the one who will meet this train in Grand Central Terminal. If you prefer, you may mail it back to us within the next three days. The postage has already been paid. Please use only tape to seal it - not staples.

Thank you for your time and cooperation.

Sincerely,



Joseph J. Giulietti  
President, MTA Metro-North Railroad



James Redeker  
Commissioner, Connecticut Department of Transportation



Randolph Glucksman  
Chair, Metro-North Rail Commuter Council



Jim Gildea  
Chair, Connecticut Metro-North  
Commuter Rail Council

## Instructions

In the first portion of this survey, please tell us how satisfied you have been with various aspects of our services over the past 12 months, beginning with your overall rating, then the environment of your home station and ending when you leave the train.

Please circle one of the numbers in the scale below that best reflects your opinion of our service. Circle numbers 1 or 2 if you are "very dissatisfied" with our performance on a regular basis. Circle numbers 3, 4, or 5 to indicate you are generally "dissatisfied" with our service levels and delivery. Circle numbers 6, 7 or 8 if you are generally "satisfied" with our service. Circle 9 or 10 to indicate you are "very satisfied" with aspects of our service.

If you are not familiar with a particular aspect, please circle NA.

### OVER THE PAST 12 MONTHS:

#### Metro-North Overall

How satisfied are you with:

- |   | Dissatisfied | Very Dissatisfied | Satisfied | Very Satisfied |                 |
|---|--------------|-------------------|-----------|----------------|-----------------|
| 1. Metro-North overall                    | 1            | 2                 | 3         | 4              | 5 6 7 8 9 10 NA |
| 2. Value for the money using the railroad | 1            | 2                 | 3         | 4              | 5 6 7 8 9 10 NA |

## Your Home Boarding Station

How satisfied are you with:

- |  |   |   |   |   |   |   |   |   |   |    |    |
|--|---|---|---|---|---|---|---|---|---|----|----|
| 3. Your home boarding station overall                            | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | NA |
| 4. Directional signage to the station                            | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | NA |
| 5. Personal security at the station                              | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | NA |
| 6. Cleanliness inside the station building (excluding restrooms) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | NA |
| 7. Cleanliness of platforms and outdoor shelters                 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | NA |
| 8. Cleanliness of the area along the tracks (the right of way)   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | NA |
| 9. Maintenance of station and platforms during snow/ice events   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | NA |
| 10. Maintenance of station at all other times                    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | NA |
| 11. Safety conditions at station at all other times              | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | NA |
| 12. Sound quality of audio announcements                         | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | NA |
| 13. Availability of parking on weekdays                          | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | NA |
| 14. Security of your car while parked at the station             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | NA |

## On Trains (All time periods)

How satisfied are you with:

- |   | Dissatisfied | Very Dissatisfied | Satisfied | Very Satisfied |                 |
|---|--------------|-------------------|-----------|----------------|-----------------|
| 15. MNR train service overall   | 1            | 2                 | 3         | 4              | 5 6 7 8 9 10 NA |
| 16. On-time performance   | 1            | 2                 | 3         | 4              | 5 6 7 8 9 10 NA |
| 17. The safe operation of the train   | 1            | 2                 | 3         | 4              | 5 6 7 8 9 10 NA |
| 18. Availability of seats on trains   | 1            | 2                 | 3         | 4              | 5 6 7 8 9 10 NA |
| 19. Condition of seats on trains  | 1            | 2                 | 3         | 4              | 5 6 7 8 9 10 NA |
| 20. The temperature in the train  | 1            | 2                 | 3         | 4              | 5 6 7 8 9 10 NA |
| 21. Personal security on trains   | 1            | 2                 | 3         | 4              | 5 6 7 8 9 10 NA |
| 22. Cleanliness of the restrooms  | 1            | 2                 | 3         | 4              | 5 6 7 8 9 10 NA |
| 23. Cleanliness of train's interior (excluding restrooms)                       | 1            | 2                 | 3         | 4              | 5 6 7 8 9 10 NA |
| 24. Sound quality of audio announcements  | 1            | 2                 | 3         | 4              | 5 6 7 8 9 10 NA |
| 25. Train interior maintenance - lights, floors, windows, etc (excluding seats) | 1            | 2                 | 3         | 4              | 5 6 7 8 9 10 NA |
| 26. The Quiet Car program   | 1            | 2                 | 3         | 4              | 5 6 7 8 9 10 NA |

## Courtesy and Responsiveness of Employees

How satisfied are you with:

- |   |   |   |   |   |   |   |   |   |   |    |    |
|---|---|---|---|---|---|---|---|---|---|----|----|
| 27. The overall courtesy and responsiveness of our employees                          | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | NA |
| 28. Conductors  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | NA |
| 29. Ticket Sellers  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | NA |
| 30. Customer Service Representatives (Ushers) in Grand Central Terminal               | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | NA |
| 31. Information Booth and Station Master's Office Personnel at Grand Central Terminal | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | NA |
| 32. Telephone Information Center Representatives (in NY: 511; In CT: 877-690-5114)    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | NA |
| 33. Professional appearance of conductors   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | NA |
| 34. MTA Police  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | NA |





## Train Scheduling

How satisfied are you with:

	Disatisfied	Very Disatisfied	Satisfied	Very Satisfied	
35. Overall train schedules	1	2	3	4	5 6 7 8 9 10 NA
34. The weekday AM and PM peak schedule to or from your station	1	2	3	4	5 6 7 8 9 10 NA
37. The weekday off-peak schedule to and from your station including late night service	1	2	3	4	5 6 7 8 9 10 NA
38. The weekend schedule to and from your station	1	2	3	4	5 6 7 8 9 10 NA

## Communication

How satisfied are you with:

39. a. Our overall communications to you	1	2	3	4	5	6	7	8	9	10	NA
b. Our overall communications during normal service conditions	1	2	3	4	5	6	7	8	9	10	NA
c. Our overall communications during scheduled service disruptions (alternative busing, etc.)	1	2	3	4	5	6	7	8	9	10	NA
d. Our overall communications during unplanned service disruptions	1	2	3	4	5	6	7	8	9	10	NA

### Communication during normal service conditions

How satisfied are you with the information we give to you:

40. Real time train information at your home boarding station	1	2	3	4	5	6	7	8	9	10	NA
41. Other communication at your home boarding station	1	2	3	4	5	6	7	8	9	10	NA
42. On board our trains	1	2	3	4	5	6	7	8	9	10	NA
43. At Grand Central Terminal	1	2	3	4	5	6	7	8	9	10	NA
44. On our website (www.mta.info)	1	2	3	4	5	6	7	8	9	10	NA
45. Via our email alerts (if you subscribe)	1	2	3	4	5	6	7	8	9	10	NA
46. Via our social media sites (on Facebook and Twitter)	1	2	3	4	5	6	7	8	9	10	NA
47. Through the TrainTime Mobile App (if used)	1	2	3	4	5	6	7	8	9	10	NA
48. With the automated phone system for schedules, fares, etc.	1	2	3	4	5	6	7	8	9	10	NA
49. With Customer Service Center Representatives (in NYC: 511, In CT: 877-690-5114)	1	2	3	4	5	6	7	8	9	10	NA

## Communication (continued)

50. Which one method do you use most frequently to get information about Metro-North service?

___ MNR Website	___ email	___ Facebook
___ Seat Notice	___ Train Time app	___ Twitter
___ News Media	___ Instagram	
___ Other Social Media Site (Specify: _____)		
___ Other: _____		
___ I don't know how to contact Metro-North		

### Communication during unplanned service disruptions

How satisfied are you with the information we give you about the length and cause of the unplanned service disruption :

	Disatisfied	Very Disatisfied	Satisfied	Very Satisfied	
51. Real time train information at your home boarding station	1	2	3	4	5 6 7 8 9 10 NA
52. Other communication at your home boarding station	1	2	3	4	5 6 7 8 9 10 NA
53. On board our trains	1	2	3	4	5 6 7 8 9 10 NA
54. At Grand Central Terminal	1	2	3	4	5 6 7 8 9 10 NA
55. On our website (www.mta.info)	1	2	3	4	5 6 7 8 9 10 NA
56. Through the "Service Status" box on our website	1	2	3	4	5 6 7 8 9 10 NA
57. Via our email alerts (if you subscribe)	1	2	3	4	5 6 7 8 9 10 NA
58. Via our social media sites (on Facebook and Twitter)	1	2	3	4	5 6 7 8 9 10 NA
59. Through the TrainTime Mobile App (if used)	1	2	3	4	5 6 7 8 9 10 NA
60. With the automated phone system for schedules, fares, etc.	1	2	3	4	5 6 7 8 9 10 NA
61. With Customer Service Center Representatives (in NYC: 511, In CT: 877-690-5114)	1	2	3	4	5 6 7 8 9 10 NA

## Grand Central Terminal (GCT)

How satisfied are you with:

62. Grand Central Terminal overall	1	2	3	4	5	6	7	8	9	10	NA
63. The Station Master's Office in GCT, including the customer waiting area	1	2	3	4	5	6	7	8	9	10	NA

## Grand Central Terminal (GCT) (continued)

	Disatisfied	Very Disatisfied	Satisfied	Very Satisfied	
64. Personal security in GCT	1	2	3	4	5 6 7 8 9 10 NA
65. Presence of MTA Police in GCT	1	2	3	4	5 6 7 8 9 10 NA
66. Sound quality of audio announcements	1	2	3	4	5 6 7 8 9 10 NA
67. Cleanliness of GCT (excluding restrooms)	1	2	3	4	5 6 7 8 9 10 NA
68. Have you used any of the restrooms in GCT during the past 12 months? ___ Yes ___ No	1	2	3	4	5 6 7 8 9 10 NA
69. Cleanliness of restrooms in GCT	1	2	3	4	5 6 7 8 9 10 NA
70. Physical condition of restrooms	1	2	3	4	5 6 7 8 9 10 NA
71. The MTA promotes security awareness through slogans such as "If You See Something, Say Something" and "New Yorkers Keeping New York Safe". How likely are you to report suspicious items or behavior to Police or train crews? ___ Very likely ___ Not Very Likely ___ Somewhat Likely ___ Not At All Likely					
72. a. Please tell us if you are aware or unaware of the following Metro-North programs by checking the appropriate boxes below. AWARE UNAWARE					
___ ___ ConnectWithUs – Monthly forums where MNR Senior Leadership meets with customers to answer questions and get feedback.					
___ ___ TRACKS -a safety education community outreach program designed to promote safe behaviors at or around railroad grade crossings and tracks.					
___ ___ #BeThe1To Help Them Connect – Suicide Prevention Poster Campaign.					
___ ___ Zipcar – an hourly car sharing service					
___ ___ Metro-North Deals & Getaways – Discount packages with rail fare					
___ ___ MTA eTix- a mobile ticketing app that lets you purchase and use Metro-North tickets directly on your smartphone or mobile device					



☐ Too frequent  
☐ Just the right frequency  
☐ Not frequent enough



83. Which of the following categories includes your age?

- ☐ Under 18 years old      ☐ 45-54 years old  
☐ 18-24 years old      ☐ 55-64 years old  
☐ 25-34 years old      ☐ 65 years old or more  
☐ 35-44 years old

84. Are you: ☐ Male ☐ Female ☐ Other

85. How long have you been riding Metro-North?

- ☐ Less than one year  
☐ 1-3 years      ☐ 5-10 years  
☐ 3-5 years      ☐ 10 years or more

86. In which county or borough do you reside? \_\_\_\_\_

Metro-North is required by the Federal Transit Administration to ask Questions 87-95 in order to retain federal funding for the railroad

87. Are you:

- ☐ White  
☐ Black or African American  
☐ Asian  
☐ American Indian or Alaska Native  
☐ Native Hawaiian and Other Pacific Islanders  
☐ Other (Please specify) \_\_\_\_\_

88. Are you of Hispanic origin? ☐ Yes ☐ No

89. In which country were you born?

- ☐ United States      ☐ Other (Specify: \_\_\_\_\_)

90. In which country or countries were your parents/ancestors born?

- ☐ United States      ☐ Dominican Republic  
☐ Mexico      ☐ Jamaica  
☐ China      ☐ Other (Specify: \_\_\_\_\_)

91. Which language would be most helpful for you to receive

Metro-North written or electronically displayed information in?

- ☐ English      ☐ Another language (specify) \_\_\_\_\_  
☐ Spanish      ☐ No preference

92. Which language would be most helpful for you to understand Metro-North announcements or to converse in with Metro-North personnel (e.g. to ask for travel directions)?

- ☐ English      ☐ Another language (specify) \_\_\_\_\_  
☐ Spanish      ☐ No preference

93. a. What is the primary language spoken in your home?

- ☐ English      ☐ Another Language (specify: \_\_\_\_\_)  
☐ Spanish

b. How well do you speak English?

- ☐ Very well      ☐ Not well  
☐ Well      ☐ Not at all

## About You *(continued)*

94. Including yourself, how many people lived in your household in 2016?

- ☐ 1      ☐ 3      ☐ 5-6      ☐ 9 or more  
☐ 2      ☐ 4      ☐ 7-8

95. What was your approximate annual 2016 household income before taxes and other deductions?

- ☐ Under \$12,500      ☐ \$75,000 to \$99,999  
☐ \$12,500 - \$24,999      ☐ \$100,000 to \$149,999  
☐ \$25,000 - \$37,499      ☐ \$150,000 to \$199,999  
☐ \$37,500 - \$49,999      ☐ \$200,000 to \$299,999  
☐ \$50,000 - \$74,999      ☐ \$300,000 or more

If you are not satisfied with our performance in any of the areas in questions 1 through 70, please explain why below. Please also include any other comments you might have (service suggestions, safety-related comments, suggestions for railroad improvements, etc).

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If you are interested in participating in future Metro-North market research projects, please write your name, street address, email address and day or evening phone numbers below. All information will be kept confidential.

Name: \_\_\_\_\_

Street: \_\_\_\_\_

City/Town \_\_\_\_\_ Zip Code \_\_\_\_\_

E-mail Address \_\_\_\_\_

Phone (H) \_\_\_\_\_ (W) \_\_\_\_\_

**Thank you for taking the time to complete this survey.**



# West of Hudson Questionnaire

## Customer Satisfaction Survey 2017

Si Ud. prefiere completar una version de esta encuesta en Espanol, por favor llame a Metro-North Railroad al 511. Se la haremos llegar a Ud. por correo.





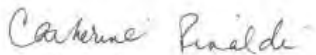
## Dear MTA Metro-North Customer:

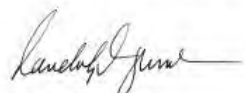
Thank you for riding Metro-North today. To help us find out if your recent travel on Metro-North has been as convenient and comfortable as we would like it to be, please take some time to complete this survey. Your input will allow us to discuss ways to improve with NJ TRANSIT.

When you have completed the survey, please return it to our representative on your train today or the one who will meet this train in Hoboken Terminal or Se-caucus Junction. If you prefer, you may mail it back to us within the next three days. The postage has already been paid. Please use only tape to seal it - not staples.

Thank you for your time and cooperation.

Sincerely,

  
Catherine Rinaldi  
Acting President, MTA Metro-North Railroad

  
Randolph Glucksman  
Chair, Metro-North Rail Commuter Council

## Instructions

In the first portion of this survey, please tell us how satisfied you have been with various aspects of our services over the past 12 months, beginning with your overall rating, then the environment of your home station and ending when you leave the train.

Please circle one of the numbers in the scale that best reflects your opinion of our service. Circle numbers 1 or 2 if you are "very dissatisfied" with our performance on a regular basis. Circle numbers 3, 4, or 5 to indicate you are generally "dissatisfied" with our service levels and delivery. Circle numbers 6, 7 or 8 if you are generally "satisfied" with our service. Circle 9 or 10 to indicate you are "very satisfied" with aspects of our service.

If you are not familiar with a particular aspect, please circle NA.

### OVER THE PAST 12 MONTHS:

#### Metro-North Overall

How satisfied are you with:

	Dis-satisfied	Very Dissatisfied	Satisfied	Very Satisfied	
1. Metro-North overall	1	2	3	4	5 6 7 8 9 10 NA
2. Value for the money using the railroad	1	2	3	4	5 6 7 8 9 10 NA

#### Your Home Boarding Station

How satisfied are you with:

3. Your home boarding station overall	1	2	3	4	5	6	7	8	9	10	NA
4. Directional signage to the station	1	2	3	4	5	6	7	8	9	10	NA
5. Personal security	1	2	3	4	5	6	7	8	9	10	NA
6. Cleanliness inside the station building (excluding restrooms)	1	2	3	4	5	6	7	8	9	10	NA
7. Cleanliness of platforms and outdoor shelters	1	2	3	4	5	6	7	8	9	10	NA
8. Cleanliness of the track area along the tracks (the right of way)	1	2	3	4	5	6	7	8	9	10	NA
9. Maintenance of station and platforms during snow/ice events	1	2	3	4	5	6	7	8	9	10	NA
10. Safety conditions at station at all other times	1	2	3	4	5	6	7	8	9	10	NA
11. Maintenance of station at all other times	1	2	3	4	5	6	7	8	9	10	NA
12. Sound quality of audio announcements	1	2	3	4	5	6	7	8	9	10	NA
13. Availability of parking on weekdays	1	2	3	4	5	6	7	8	9	10	NA
14. Security of your car while parked at the station	1	2	3	4	5	6	7	8	9	10	NA

#### On Trains (All time periods)

How satisfied are you with:

15. MNR train service overall	1	2	3	4	5	6	7	8	9	10	NA
16. On-time performance	1	2	3	4	5	6	7	8	9	10	NA
17. Safety from train accidents	1	2	3	4	5	6	7	8	9	10	NA
18. Availability of seats on trains	1	2	3	4	5	6	7	8	9	10	NA
19. Condition of seats on trains	1	2	3	4	5	6	7	8	9	10	NA

#### On Trains (continued)

	Dis-satisfied	Very Dissatisfied	Satisfied	Very Satisfied	
20. The temperature in the train	1	2	3	4	5 6 7 8 9 10 NA
21. Personal security on trains	1	2	3	4	5 6 7 8 9 10 NA
22. Cleanliness of the restrooms	1	2	3	4	5 6 7 8 9 10 NA
23. Cleanliness of train's interior (excluding restrooms)	1	2	3	4	5 6 7 8 9 10 NA
24. Sound quality of audio announcements	1	2	3	4	5 6 7 8 9 10 NA
25. Train interior maintenance- lights, floors, windows, etc. (excluding seats)	1	2	3	4	5 6 7 8 9 10 NA
26. The Quiet Commute Program	1	2	3	4	5 6 7 8 9 10 NA

#### Courtesy and Responsiveness of Railroad Employees

How satisfied are you with:

27. The overall courtesy and responsiveness of railroad employees	1	2	3	4	5	6	7	8	9	10	NA
28. Conductors	1	2	3	4	5	6	7	8	9	10	NA
29. Ticket Sellers	1	2	3	4	5	6	7	8	9	10	NA
30. Metro-North Telephone Information Center representatives (in NY: 511)	1	2	3	4	5	6	7	8	9	10	NA
31. MTA Police	1	2	3	4	5	6	7	8	9	10	NA

#### Train Scheduling

How satisfied are you with:

32. Overall train schedules	1	2	3	4	5	6	7	8	9	10	NA
33. The weekday AM and PM peak schedule to or from your home station	1	2	3	4	5	6	7	8	9	10	NA
34. The weekday off-peak schedule to and from your home station	1	2	3	4	5	6	7	8	9	10	NA
35. The weekend schedule to and from your home station	1	2	3	4	5	6	7	8	9	10	NA
36. Connections to trains to/from NY Penn Station	1	2	3	4	5	6	7	8	9	10	NA

#### Communication

How satisfied are you with:

37. a. Our overall communications to you	1	2	3	4	5	6	7	8	9	10	NA
--	---	---	---	---	---	---	---	---	---	----	----





**Communication** (cont.)

Disatisfied  
Very  
Dissatisfied  
Satisfied  
Very  
Satisfied

- b. Our overall communications during normal service conditions 12 3 4 5 6 7 8 9 10 NA
- c. Our overall communications during unplanned service disruptions 12 3 4 5 6 7 8 9 10 NA

**Communication during normal service conditions**

How satisfied are you with the information we give you:

38. At your home boarding station 12 3 4 5 6 7 8 9 10 NA
39. On board our trains 12 3 4 5 6 7 8 9 10 NA
40. At Hoboken Terminal 12 3 4 5 6 7 8 9 10 NA
41. At Secaucus Junction 12 3 4 5 6 7 8 9 10 NA
42. At Penn Station New York 12 3 4 5 6 7 8 9 10 NA
43. On the Metro-North website (www.mta.info) 12 3 4 5 6 7 8 9 10 NA
44. On the NJ TRANSIT website (www.njtransit.com) 12 3 4 5 6 7 8 9 10 NA
45. With Metro-North's social media sites (Facebook, Twitter) 12 3 4 5 6 7 8 9 10 NA
46. With Metro-North's automated phone system for schedules, fares, etc. (In NY: 511) 12 3 4 5 6 7 8 9 10 NA
47. With Metro-North's Customer Service Center Representatives (In NY: 511) 12 3 4 5 6 7 8 9 10 NA
48. With NJ TRANSIT's automated phone system for schedules, fares, etc. (973-275-5555) 12 3 4 5 6 7 8 9 10 NA
49. With NJ TRANSIT's Travel Information Center Representatives (973-275-5555) 12 3 4 5 6 7 8 9 10 NA
50. Which method do you use most frequently to get information about Metro-North service?
- \_\_\_\_ MNR Website \_\_\_\_ NJT Website \_\_\_\_ Facebook
- \_\_\_\_ Seat Notice \_\_\_\_ Twitter
- \_\_\_\_ News Media \_\_\_\_ Instagram
- \_\_\_\_ Other method \_\_\_\_\_
- \_\_\_\_ I don't know how to contact Metro-North

**Communication during unplanned service disruptions**

How satisfied are you with the information we give you about the length and cause of the delay:

**Communication** (cont.)

Disatisfied  
Very  
Dissatisfied  
Satisfied  
Very  
Satisfied

51. At your home boarding station 12 3 4 5 6 7 8 9 10 NA
52. On board our trains 12 3 4 5 6 7 8 9 10 NA
53. At Hoboken Terminal 12 3 4 5 6 7 8 9 10 NA
54. At Secaucus Junction 12 3 4 5 6 7 8 9 10 NA
55. At Penn Station New York 12 3 4 5 6 7 8 9 10 NA
56. In the "Service Status" box on the Metro-North website (www.mta.info) 12 3 4 5 6 7 8 9 10 NA
57. With Metro-North's automated phone system for schedules, fares, etc. (In NY: 511) 12 3 4 5 6 7 8 9 10 NA
58. With Metro-North's Customer Service Center Representatives (In NY: 511) 12 3 4 5 6 7 8 9 10 NA
59. On the NJ TRANSIT website (www.njtransit.com) 12 3 4 5 6 7 8 9 10 NA
60. With NJ TRANSIT's automated phone system for schedules, fares, etc. (973-275-5555) 12 3 4 5 6 7 8 9 10 NA
61. With NJ TRANSIT'S Telephone Information Center Representatives (973-275-5555) 12 3 4 5 6 7 8 9 10 NA

**Hoboken Terminal**

How satisfied are you with:

62. Hoboken Terminal overall 12 3 4 5 6 7 8 9 10 NA
63. Personal security in Hoboken Terminal 12 3 4 5 6 7 8 9 10 NA
64. The connections to PATH/Ferry 12 3 4 5 6 7 8 9 10 NA
65. Have you used any of the restrooms in Hoboken Terminal during the past 12 months?
- \_\_\_\_ Yes (continue) \_\_\_\_ No (Go to Q.68)
66. Cleanliness of restrooms 12 3 4 5 6 7 8 9 10 NA
67. Physical condition of the restroom 12 3 4 5 6 7 8 9 10 NA
68. Cleanliness of the terminal (excluding restrooms) 12 3 4 5 6 7 8 9 10 NA

**Secaucus Junction**

How satisfied are you with:

69. Secaucus Junction overall 12 3 4 5 6 7 8 9 10 NA
70. Personal security in Secaucus Junction 12 3 4 5 6 7 8 9 10 NA

**About Your Trip**

71. a. At what station did you board this train today? (Please Print)

b. Is this your home boarding station?

\_\_\_\_ Yes \_\_\_\_ No

c. If no, please print your home boarding station.

72. The MTA promotes security awareness through slogans such as "If You See Something, Say Something" and "New Yorkers Keeping New York Safe". How likely are you to report suspicious items or behavior to Police or train crews?
- \_\_\_\_ Very likely \_\_\_\_ Not Very Likely
- \_\_\_\_ Somewhat Likely \_\_\_\_ Not At All Likely
73. Please tell us if you are aware or unaware of the following Metro-North programs by checking the appropriate boxes below.

Aware Unaware

- \_\_\_\_ ConnectWithUs – Social media communication with Metro-North
- \_\_\_\_ TRACKS -a safety education community outreach program designed to promote safe behaviors at or around railroad grade crossings and tracks
- \_\_\_\_ #BeThe1To Help Them Connect – Suicide Prevention Program
- \_\_\_\_ Zipcar – an hourly car sharing service
- \_\_\_\_ Metro-North Deals & Getaways – Discount packages with rail fare

74. a. If you are aware of Metro-North Deals &amp; Getaways, where did you find out about them?

\_\_\_\_ MNR website \_\_\_\_ At a MNR station

\_\_\_\_ Word of mouth \_\_\_\_ On Social Media

\_\_\_\_ Other (Please specify): \_\_\_\_\_

b. Have you ever purchased a Metro-North Deal or Getaway?

\_\_\_\_ Yes \_\_\_\_ No



**About Your Trip** (cont.)

75. How do you usually travel to your home station?  
☐ Drive and park ☐ Walk  
☐ Dropped off at station ☐ Taxi  
☐ Carpool/Vanpool ☐ Bicycle  
☐ Public Bus (Route No. \_\_\_\_\_ Operator: \_\_\_\_\_)  
☐ Ridesharing programs (e.g. UBER, Lyft)  
☐ Rental car (e.g. Enterprise, Zipcar)  
☐ Other (Please specify) \_\_\_\_\_
76. How frequently do you travel on Metro-North?  
☐ 6-7 days per week  
☐ 5 days per week  
☐ 1 - 2 days per week  
☐ 3 - 4 days per week  
☐ 1 - 2 days a month  
☐ Other (Specify frequency) \_\_\_\_\_
77. a. What type of ticket are you using today?  
☐ Monthly ☐ Weekly ☐ 10 Trip  
☐ One Way ☐ Round Trip  
☐ Seniors/Disabled Persons/Medicare Recipients
- b. Where did you purchase this ticket?  
☐ Ticket Vending Machine ☐ Mail & Ride  
☐ Ticket Window ☐ Onboard the Train  
☐ On a Mobile Device  
☐ Other (Please Specify): \_\_\_\_\_
78. At which station will you end this trip today?  
☐ Hoboken Terminal ☐ Secaucus Junction  
☐ Other (Specify) \_\_\_\_\_
79. When you leave the train, how will you get to your final destination?  
☐ NYC subway or bus ☐ PATH - WTC Line  
☐ Ferry to midtown Manhattan ☐ PATH - 33rd St. Line  
☐ Ferry to downtown Manhattan ☐ Walk  
☐ Rental car (e.g. Enterprise, Zipcar)  
☐ Transfer to another train to Penn Station  
☐ Ridesharing programs (e.g. UBER, Lyft)  
☐ Other (specify) \_\_\_\_\_
80. a. How much did the Amtrak repairs this summer at NY Penn Station impact your commute?  
☐ No Impact ☐ A moderate impact  
☐ A small impact ☐ A major impact

- b. Please explain the way(s) in which your travel was impacted.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

81. a. (MANHATTAN-BOUND CUSTOMERS ONLY) Which of the following areas of Manhattan will be your final destination today?

☐ Above 60th Street  
☐ 34th-60th Streets, 5th Avenue and EAST  
☐ 34th-60th Streets WEST of 5th Avenue  
☐ 14th-33rd Streets  
☐ Canal Street to 13th Street  
☐ Below Canal Street

- b. During rail service disruptions to Manhattan, which alternative service do you primarily use?

☐ Drive to the Hudson Line and use (specify which station: \_\_\_\_\_)  
☐ Take Tappan Zee Express bus to Tarrytown station  
☐ Take Ferry to Beacon station  
☐ Take Express Bus to Manhattan (Operator: \_\_\_\_\_)  
☐ Drive alone/with others to Manhattan  
☐ Do not make the trip  
☐ Other (Specify: \_\_\_\_\_)

82. What is the zip code of your final destination today?  
 \_\_\_\_\_

83. What is the purpose of your trip today?

☐ Commute to or from work  
☐ Travel to or from school  
☐ For business reasons (but not for commuting)  
☐ Shopping ☐ Personal reasons  
☐ Entertainment ☐ Other

**About You**

84. Which of the following categories includes your age?

☐ Under 18 years old  
☐ 18-24 years old  
☐ 25-34 years old  
☐ 35-44 years old  
☐ 45-54 years old  
☐ 55-64 years old  
☐ 65 years old or more

85. Are you: ☐ Male ☐ Female

86. How long have you been riding Metro-North?

☐ Less than one year  
☐ 1 - 3 years  
☐ 3 - 5 years  
☐ 5 - 10 years  
☐ 10 years or more

87. What is your home zip code? \_\_\_\_\_

88. In which county do you reside?

☐ Orange ☐ Rockland  
☐ Other (Specify: \_\_\_\_\_)

Metro-North is required by the Federal Transit Administration to ask Questions 89-97 in order to retain federal funding for the railroad

89. Are you:

☐ White  
☐ Black or African American  
☐ American Indian or Alaska Native  
☐ Native Hawaiian and Other Pacific Islanders  
☐ Asian  
☐ Other (Specify: \_\_\_\_\_)

90. Are you of Hispanic origin? ☐ Yes ☐ No

91. In which country were you born?

☐ United States ☐ Other (Specify: \_\_\_\_\_)

92. In which country or countries were your parents/ancestors born?

☐ United States ☐ Dominican Republic  
☐ Mexico ☐ Jamaica  
☐ China ☐ Other (Specify: \_\_\_\_\_)

93. Which language would be most helpful for you to receive Metro-North written or electronically displayed information in?

☐ English ☐ Another language (specify) \_\_\_\_\_  
☐ Spanish ☐ No preference

94. Which language would be most helpful for you to understand Metro-North announcements (or to converse in with railroad personnel, e.g., to ask for travel directions)?

☐ English ☐ Another language (specify) \_\_\_\_\_  
☐ Spanish ☐ No preference





- 95 a. What is the primary language spoken in your home?  
       \_\_\_ English                      \_\_\_ Another language (specify: \_\_\_\_\_)  
       \_\_\_ Spanish  
 b. How well do you speak English?  
       \_\_\_ Very well                      \_\_\_ Not well  
       \_\_\_ Well                              \_\_\_ Not at all

96. Including yourself, how many people lived in your household in 2016?  
       \_\_\_ 1            \_\_\_ 3            \_\_\_ 5-6            \_\_\_ 9 or more  
       \_\_\_ 2            \_\_\_ 4            \_\_\_ 7-8

97. What was your approximate annual 2016 household income before taxes and other deductions?  
       \_\_\_ Under \$12,500                      \_\_\_ \$75,000 to \$99,999  
       \_\_\_ \$12,500 – \$24,999                      \_\_\_ \$100,000 to \$149,999  
       \_\_\_ \$25,000 - \$37,499                      \_\_\_ \$150,000 to \$199,999  
       \_\_\_ \$37,500 - \$49,999                      \_\_\_ \$200,000 to \$299,999  
       \_\_\_ \$50,000 - \$74,999                      \_\_\_ \$300,000 or more

If you are not satisfied with our performance in any of the areas in questions 1 through 70, please explain why below. Please also include any other comments or service suggestions. (Safety-related comments, suggestions for railroad improvements, etc.)

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If you are interested in participating in future Metro-North market research projects, please write your name, street address, email address and day or evening phone numbers below. All information will be kept confidential.

Name: \_\_\_\_\_  
 Street: \_\_\_\_\_  
 City/Town \_\_\_\_\_ Zip Code \_\_\_\_\_  
 E-mail Address \_\_\_\_\_  
 Phone (H) \_\_\_\_\_ (W) \_\_\_\_\_

**Thank you for taking the time to complete this survey.**



# March 2018 MNR Committee Meeting Monthly PTC Project Update

March 19, 2018

(Data through 2/28/2018)

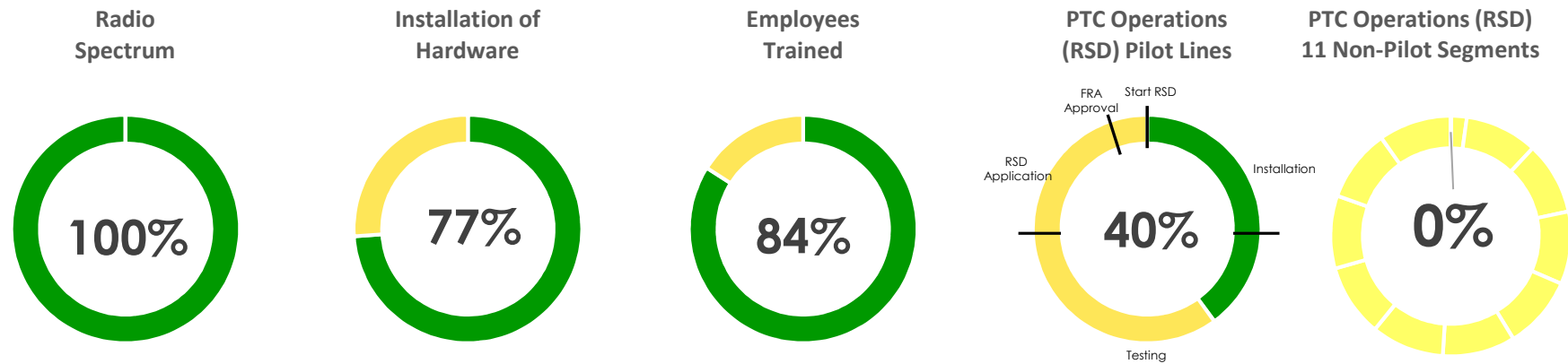


## PTC Overall Project Status

Item	Comments
Schedule	PTC operating on all lines by December 31, 2018
% Complete	MNR – 63%
Budget	\$546.6M



# MNR Project Progress Dashboard



# MNR East of Hudson PTC – 2018 Hardware Installation Projections

PTC Subsystem	System Requirements	FRA Goals	Installs through Feb 2018	% Complete FRA Goals	Remaining to meet FRA Goals	Feb-18		Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
						Forecast	Actual										
Transponders	2931	2931	2502	85%	429	0	0	0	0	75	75	75	75	75	54		
WIU's	84	84	80	95%	4	1	0	1	1	1	0	1					
Radio Cases	104	104	52	50%	63	7	11	8	8	8	8	8	6	4	2		
M7	167	167	167	100%	0												
M3	69	32	15	47%	17	3	2	3	1	1	12	12	12	11			
P32	31	23	3 Complete 31 Partial (OBC)	13%/100%	20	3	3 Partials	3	3	3	3	3	3	3	3	1	
Cab Cars	51	35	2 Complete 33 Partial (OBC)	6%/94%	33	3	2 Partials	3	5	6	6	6	6	6	6	4	
M8	190	106	190 Partial (OBC)	0.0%/100%	106	0	0	0	24	24	24	24	24	24	24	22	
BL20	12	9	12 Partial	0.0%	9	0	0	0	1	1	2	1	1	2	2	2	
GP35	8	4	7 Partial	0.0%	4	0	0	0	0	1	1	1	1	1	1	2	



Month when FRA goal is met

# MNR Port Jervis Line Hardware Installation Projections

PTC Subsystem	System Requirements	FRA Goals	Installs through Feb 2018	% Complete FRA Goals	Remaining to meet FRA Goals	Feb-18		Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
						Forecast	Actual										
Transponders	250	250	0	0%	250	0	0	0	0	0	0	80	80	90			
WIU's	10	10	0	0%	10	0	0	0	0	0	0	3	3	3	1		
Radio Cases	11	11	0	0%	11	0	0	0	0	0	0	3	3	3	2		

Note : Port Jervis Line Wayside Hardware Installation Schedule is dependent on NJ Transit PTC Contractor design and deliveries.



Month when FRA goal is met



## MNR Project Update (February Accomplishments)

- Civil Speed Enforcement (CSE)
  - Installed, tested and commissioned 2502 Transponders on 720 track miles.
  - All lines and branches East of the Hudson are commissioned as of February 28, 2018
  - Completed M8 software upgrade for Civil Speed Enforcement.
- Witnessed MNR Office FAT with 22 open variances to be addressed
- Began Site Acceptance Testing on the RSD Segment (Tarrytown – Harmon)
  - Started installing Cellular equipment for back office connectivity
- Third party contractor continues installation of Radio Cases and Antenna Poles
- Started developing the FRA Revenue Service Demonstration (RSD) plan
- Started developing test procedures for tenant interoperability on the test track
- Continue the development of training material and training of Railroad forces



## March 2018 Look-Ahead

- Civil Speed Enforcement (CSE)
  - Begin operating equipped Diesel and Cab Cars with CSE starting March 1, 2018
  - Begin operating M7 Fleet with CSE on March 10, 2018
  - Finalize software modifications for M3 Fleet to allow implementation to begin in April
- Complete Office Subsystem regression testing addressing open variances
- Begin Integrated System Pre-FAT (March 15th – April 19th)
- Request Board Approval for change order to Dayton T. Brown for RSD/Safety Plan support
- Complete review/approval of Final Design Review documents
- Perform Interoperability testing with CSX on the Test Track
- Continue field testing on the test track to demonstrate PTC functionality (Temporary Speed Restrictions (TSR) Enforcement, Positive Train Stop, Accurate Stop)
- Continue review of CSE data logs of Tenant Railroads (Amtrak/CSX/P&W) operation demonstrating PTC interoperability on MNR.





## MNR Project Risks and Railroad Mitigations

- Proceeding with Integrated System FAT and pilot testing with open test variances
  - There are 22 core open Office FAT variances will be out of development by March 30<sup>th</sup>, but not available for the “release” to system until Office FAT in early May.
  - Other non-core variances to be addressed in subsequent releases
  - Maximize the factory test environment to expedite test corrections and continue to conduct Integrated System tests.
  - Remotely witness test cases in order to expedite variance closure.
  - Expedite the delivery of the contractually required test lab to be utilized in New York to support testing.
  - The Contractor is providing a cloud based solution to allow the joint Railroad/Contractor team to access the Requirements Traceability Matrix (RTM) tool to support real-time Verification & Validation activities.
- Systems Integration challenges as a result of the application of ACSES on high density operations can only be discovered during field operational testing.
- The Railroads are in the process to procure additional radio spectrum to minimize potential interference issues.



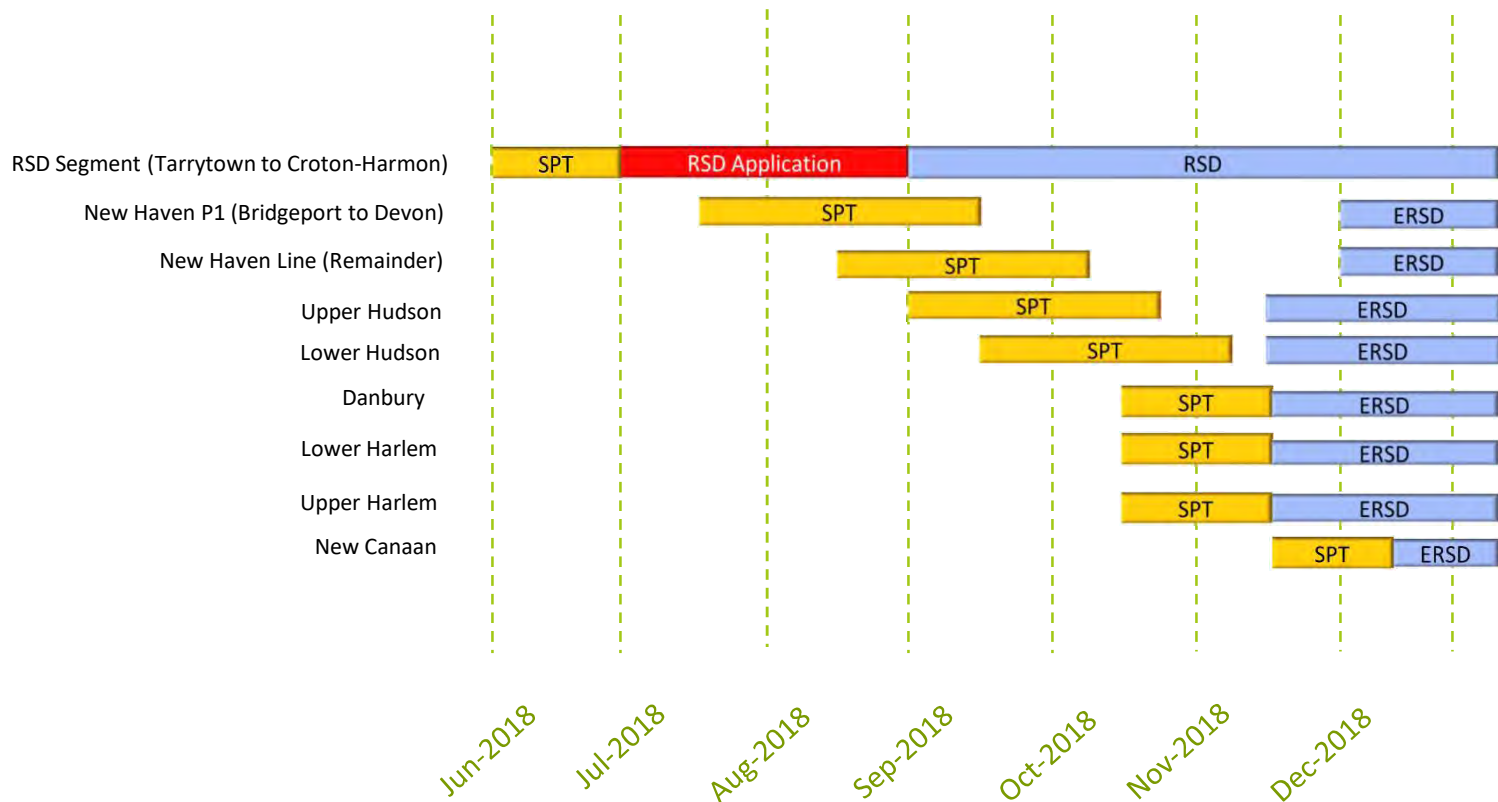
## MNR Project Risks and Railroad Mitigations

- System Integrator's (SI) difficulty in the acquisition and retainage of PTC knowledgeable resources to support the project to meet the deadline. BT has recently changed project executives, bringing Ronald Birkelbach on board.
- System Integrator's (SI) difficulty in the acquisition and retainage of PTC knowledgeable resources to support the project to meet the deadline.
  - The Contractor has added staff and are acquiring additional outside support for their design, testing and requirements work.
  - Railroads are utilizing their own consultants
- Finalization of agreement with Amtrak for interoperability design and implementation.
  - Held a meeting with Amtrak Engineers to finalize line boundary communication link
- Port Jervis Line PTC installation dependent upon receipt of wayside equipment from NJT
  - MNR will accept Wayside/Communication material at 50% design to commence installation.
- Completion by December 2018 requires simultaneous commissioning of multiple line segments making it challenging with constraints of resources.
- Timely approvals of RSD applications by FRA due to a significant number of applications requiring FRA review at the same time.



# MNR Schedule – Line Segment Revenue Service

All Lines in Revenue Service by Dec-2018 (Except Waterbury)  
Hudson Line Pilot in Revenue Service Demonstration by August 2018



SPT = Site Performance Tests    RSD = Revenue Service Demonstration    ERSD = Extended Revenue Service Demonstration

# MNR PTC Timeline and Look-ahead

## **Feb 2018**

- ✓ Completed MNR Office FAT with open Variances
- ✓ CSE wayside installations are complete East of Hudson

## **Mar 2018**

MNR to achieve Final Design Review (FDR) (previously December 2017)

MNR to complete Integrated System Pre-FAT

MNR to start operating diesel & M7 trains with ACSES CSE

## **Apr 2018**

MNR to complete Integrated System FAT (previously March)

MNR to start Site Performance Testing on Hudson Line Pilot (previously February)

## **May 2018**

MNR to start operating M3 trains with ACSES CSE

## **Jun 2018**

MNR to submit RSD application for Tarrytown to Croton-Harmon segment. MNR schedule is premised upon timely FRA approval of this application.



# MNR PTC Timeline and Look-ahead

## **July 2018**

MNR to complete all required training to employees

## **Aug 2018**

MNR to obtain FRA approval to start RSD on Tarrytown to Croton-Harmon Hudson line segment.

## **Sep 2018**

Begin RSD on Tarrytown to Croton-Harmon segment on Hudson Line

## **Oct 2018**

MNR to complete all wayside installations including Port Jervis Line

## **Nov 2018**

MNR to complete all onboard installations

MNR to request expansion of RSD approval to non-pilot track segments

## **Dec 2018**

MNR to submit PTC Safety Plan to FRA for approval

MNR continue to place lines in Extended RSD



# PTC Equipment



Conduit/Electrical service/Office Equipment installed at the Emergency Control Center (ECC)



# PTC Equipment



Antenna Pole/Radio Case/Communication Interface Case Installed at Tarrytown CP25

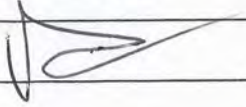


**Metro-North Railroad**

# **Procurements**


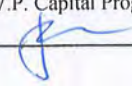





<b>Subject</b>	Request for Authorization to Award Various Procurements
<b>Department</b>	Procurement and Material Management
<b>Department Head Name</b>	Alfred Muir, Sr. Director
<b>Department Head Signature</b>	
<b>Project Manager Name</b>	

<b>Date</b>	March 6, 2018
<b>Vendor Name</b>	Various
<b>Contract Number</b>	Various
<b>Contract Manager Name</b>	Various
<b>Table of Contents Ref #</b>	

Board Action					
Order	To	Date	Approval	Info	Other
1	MNR Comm. Mtg.	3-19-18	X		
2	MTA Board Mtg.	3-21-18	X		

Internal Approvals			
	Approval		Approval
X	President 	X	V.P. Capital Programs 
X	Sr. V.P. Operations 		
X	V.P. & General Counsel 		
X	V.P. Finance & IT 		

Internal Approvals (cont.)							
Order	Approval	Order	Approval	Order	Approval	Order	Approval
—	—	—	—	—	—	—	—

**PURPOSE:**

To obtain approval of the Board to award various contracts/contract modifications and purchase orders, and to inform the MTA Metro-North Railroad Committee of these procurement actions.

**DISCUSSION:**

**MNR proposes to award non-competitive procurements in the following categories:**

<u>Schedules Requiring Two-Thirds Vote (or more, where noted)</u>		<u># of Actions</u>	<u>\$ Amount</u>
Schedule A: Non-Competitive Purchases and Public Work Contracts		1	\$20,516,723
• Jamaica Bearings Company, Inc.      \$20,516,723			
<u>Schedules Requiring Majority Vote</u>			
Schedule H: Modifications to Personal/Miscellaneous Service Contracts		1	\$1,000,000
• Dayton T. Brown      \$1,000,000			
SUB TOTAL:		2	\$21,516,723

**MNR proposes to award competitive procurements in the following categories:**

<u>Schedules Requiring Two-Thirds Vote (or more, where noted)</u>		<u># of Actions</u>	<u>\$ Amount</u>
<u>Schedules Requiring Majority Vote</u>			
Schedule G: Miscellaneous Service Contracts		2	\$15,000,000
• ETS Contracting, Inc.	\$7,500,000		
• WRS Environmental Services	\$7,500,000		
SUB TOTAL:		2	\$15,000,000

**MNR presents the following procurement actions for Ratification:**

<u>Schedules Requiring Two-Thirds Vote (or more, where noted)</u>	NONE
<u>Schedules Requiring Majority Vote</u>	NONE
SUB TOTAL:	
TOTAL:	4 \$36,516,723

The contractors noted above and on the following Staff Summary Sheets have been found in all respects responsive and responsible, and are in compliance with State laws and regulations concerning procurements.

**BUDGET IMPACT:** The purchases/contracts will result in obligating MNR operating and capital funds in the amount listed. Funds are available in the current MNR 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.)

## 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 it is deemed in the public interest to obtain authorization to solicit competitive proposals through a publicly advertised RFP for the reasons specified therein the Board declares it to be impractical or inappropriate to utilize a procurement process inviting sealed bids with award to the lowest responsive/responsible bidder.
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.





## Schedule A: Non-Competitive Purchases and Public Work Contracts

Item Number: A

<b>Vendor Name (&amp; Location)</b> Jamaica Bearings Company, Inc.
<b>Description</b> Purchase of Journal Bearings for MNR Railcar Fleet
<b>Contract Term (including Options, if any)</b> Five Years
<b>Option(s) included in Total Amount?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>Procurement Type</b> <input type="checkbox"/> Competitive <input checked="" type="checkbox"/> Non-competitive
<b>Solicitation Type</b> <input type="checkbox"/> RFP <input type="checkbox"/> Bid <input checked="" type="checkbox"/> Other: Sole Source

<b>Contract Number</b> 1- 80216 & 1-80217	<b>Renewal?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>Total Amount:</b>	\$20,516,723 (not-to-exceed)
<b>Funding Source</b> <input checked="" type="checkbox"/> Operating <input type="checkbox"/> Capital <input type="checkbox"/> Federal <input type="checkbox"/> Other:	
<b>Requesting Dept./Div. &amp; Dept./Div. Head Name:</b> Procurement & Material Management, Al Muir, Sr. Director	
<b>Contract Manager:</b> Omar Messado, Assistant Deputy Director, P&MM	

### Discussion:

Approval is requested to award a five-year non-competitive, negotiated miscellaneous procurement in the not to exceed amount of \$20,516,723 to Jamaica Bearings Company, Inc. ("Jamaica") for the purchase of journal bearings and bearing components on an as-needed basis for MNR M-3, M-7, M-8 & Coach railcar fleet. Journal bearings are large axle mounted bearings allowing the axle to rotate as the wheel turns. The Original Equipment Manufacturer (OEM) of these bearings, Timken Company, does not sell its bearings direct to end users. Jamaica is the only approved Timken authorized Timken supplier for the New York City Region.

MNR negotiated fixed unit prices for the first two years of this agreement with unit price adjustments in the third and fifth year of the agreement. Those adjustments will be made per the Producer Price index (PPI). A comparative price analysis of the previous contract for these Timken bearings found that Jamaica's proposed unit cost average increased by 2.57% per year. The final agreed upon unit prices are deemed to be fair and reasonable. The total not to exceed amount of \$20,516,723 will be established as a contract release and will be issued on an as-needed basis.

In requesting Board authorization, MNR has complied with the public advertisement requirements of PAL § 1265-a (3) and PAL § 1265- a (4) (b) and with MTA All-General Contract Procurement for the procurement of sole source items. An advertisement notice was placed in the New York State Contract Reporter, the New York Post, Daily Challenge, El Diario and posted on the MNR website, which did not yield interest from other sources.

MNR completed a responsibility review of Jamaica Bearings as defined in the All Agency Responsibility Guidelines in connection with this award recommendation, which yielded no significant adverse information (SAI).

The total for the five-year term is not to exceed \$20,516,723 and is to be funded by the MNR Operating Budget.

#### **H. Modifications to Personal /Miscellaneous Service Contracts**

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

##### **2. Dayton T. Brown**

**\$1,000,000**

**Staff Summary Attached**

##### **Engineering Support Services for Positive Train Control (PTC)**

Approval is requested for additional funding in the not to exceed amount of \$1,000,000 to the firm, Dayton T. Brown, Inc. (DTB), to provide engineering services required to prepare documentation (including the Revenue Service Demonstration (RSD) Report) to satisfy Federal Railroad Administration (FRA) requirements for Positive Train Control (PTC) certification on the new Advanced Civil Speed Enforcement System (ACSES). This funding will be added to the current 36-month contract providing engineering services required to meet an urgent need to support Positive Train Control (PTC) 220MHz Radio Frequency testing with no anticipated schedule impacts.

There will be extensive reporting and documentation requirements that must be satisfied in order for MNR to meet its PTC-related obligations. Adding to the complexity of these tasks is the fact that FRA is still defining its expectations in this regard. MNR must submit, and FRA must approve, an RSD application demonstrating that the railroad is ready to begin this critical compliance step. Once the FRA approves MNR's RSD application and MNR starts running trains with PTC in its pilot segment (Tarrytown to Croton-Harmon on the Hudson Line), there are extensive data collection and reporting requirements, including monthly reporting to the FRA. In addition, MNR is required to submit a safety plan to the FRA for approval. Drafting these reports and plans, and tracking the significant data that will be generated during these activities including populating and maintaining the relevant databases, is a huge administrative undertaking, and MNR requires third party assistance to prepare the requisite documentation that will support MNR's successful completion of RSD and implementation of PTC. DTB will assist in developing the RSD application and develop an RSD Report and Safety Plan that is in compliance with the FRA requirements from 49 CFR Part 236.1005 (Requirements for PTC Systems) and 49 CFR Part 236.1015 (PTC Safety Plan requirements). DTB will incorporate changes and engineering updates in the RSD to include PTC installation and testing activities on the Railroad's right-of-way. DTB will be responsible for three tasks as follows and a fourth task on an as needed basis:

- (1) Development and integration of an RSD application and RSD Report;
- (2) Review, comment and assimilation of the safety plan and make recommendations based on the requirements as defined in 49 CFR Part 236.1015;
- (3) DTB will serve as the central repository for the monthly FRA report generation and dissemination to manage the source data and report deliverables (Content Hosting);
- (4) Engineering support on as needed basis

As indicated in the original non-competitive award to DTB in November 2017, DTB has all the necessary experience in providing engineering support in both heavy rail and transit environments. It is the only company available in the North-East region, and the only qualified company with available resources to immediately support this vital effort. As an extension of MNR staff, DTB will be used to help mitigate risk and resolve system performance issues on the remaining technical milestones. DTB has proven experience in the development of similar reports required by the Federal Railroad Administration and other regulators, and has produced reports, maintenance documentation and operator manuals for various rail clients, including ABB Traction/Adtranz, Baltimore MTA, Metropolitan Transportation Authority (New York City Transit – Subway), New Jersey Transit (NJT) and Southeastern Pennsylvania Transportation Authority (SEPTA). DTB has also worked with clients in the

aviation industry who are subject to rigorous test plan requirements. This expertise will be invaluable to MNR in the successful completion of the Railroad's final RSD documentation to the FRA.

MNR completed a responsibility review of Dayton T. Brown as defined in the All Agency Responsibility Guidelines in connection with this award recommendation, which yielded no significant adverse information (SAI).

MNR will receive the benefit of pricing negotiated by the U.S. General Services Administration (GSA) under its contract GS-230-0038K. Tasks 1-3 are proposed in the not to exceed amount of \$725,000, Task 4 General Engineering Support is proposed in the not to exceed amount of \$275,000. The total not to exceed amount of \$1,000,000 is to be funded by MNR's Operating Budget.



## Schedule H: Modifications to Personal Service and Miscellaneous Service Contracts

Item Number: H

Page 1 of 2

<b>Vendor Name (&amp; Location)</b> Dayton T. Brown, Inc.		<b>Contract Number:</b> 88157	<b>AWO/Modification #</b> 1
<b>Description</b> Engineering Support Services for Positive Train Control (PTC)		<b>Original Amount:</b>	\$500,000
<b>Contract Term (including Options, if any)</b> 36 Months		<b>Prior Modifications:</b>	\$0
<b>Option(s) included in Total Amount?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<b>Prior Budgetary Increases:</b>	\$0
<b>Procurement Type</b> <input type="checkbox"/> Competitive <input checked="" type="checkbox"/> Non-competitive		<b>Current Amount:</b>	\$500,000
<b>Solicitation Type</b> <input type="checkbox"/> RFP <input type="checkbox"/> Bid <input checked="" type="checkbox"/> Other: Sole Source		<b>This Request:</b>	\$1,000,000 (not to exceed)
<b>Funding Source</b> <input checked="" type="checkbox"/> Operating <input type="checkbox"/> Capital <input type="checkbox"/> Federal <input type="checkbox"/> Other:		<b>% of This Request to Current Amount:</b>	200%
<b>Requesting Dept./Div. &amp; Dept./Div. Head Name:</b> Procurement & Material Management, Al Muir, Sr. Director		<b>% of Modifications (including This Request) to Original Amount:</b>	200%

Approval is requested for additional funding in the not to exceed amount of \$1,000,000 to the firm, Dayton T. Brown, Inc. (DTB), to provide engineering services required to prepare documentation (including the Revenue Service Demonstration (RSD) Report) to satisfy Federal Railroad Administration (FRA) requirements for Positive Train Control (PTC) certification on the new Advanced Civil Speed Enforcement System (ACSES). This funding will be added to the current 36-month contract providing engineering services required to meet an urgent need to support Positive Train Control (PTC) 220MHz Radio Frequency testing with no anticipated schedule impacts.

There will be extensive reporting and documentation requirements that must be satisfied in order for MNR to meet its PTC-related obligations. Adding to the complexity of these tasks is the fact that FRA is still defining its expectations in this regard. MNR must submit, and FRA must approve, an RSD application demonstrating that the railroad is ready to begin this critical compliance step. Once the FRA approves MNR's RSD application and MNR starts running trains with PTC in its pilot segment (Tarrytown to Croton-Harmon on the Hudson Line), there are extensive data collection and reporting requirements, including monthly reporting to the FRA. In addition, MNR is required to submit a safety plan to the FRA for approval. Drafting these reports and plans, and tracking the significant data that will be generated during these activities including populating and maintaining the relevant databases, is a huge administrative undertaking, and MNR requires third party assistance to prepare the requisite documentation that will support MNR's successful completion of RSD and implementation of PTC. DTB will assist in developing the RSD application and develop an RSD Report and Safety Plan that is in compliance with the FRA requirements from 49 CFR Part 236.1005 (Requirements for PTC Systems) and 49 CFR Part 236.1015 (PTC Safety Plan requirements). DTB will incorporate changes and engineering updates in the RSD to include PTC installation and testing activities on the Railroad's right-of-way. DTB will be responsible for three tasks as follows and a fourth task on an as needed basis:

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- (4) Engineering support on as needed basis

As indicated in the original non-competitive award to DTB in November 2017, DTB has all the necessary experience in providing engineering support in both heavy rail and transit environments. It is the only company available in the North-East region, and the only qualified company with available resources to immediately support this vital effort. As an extension of MNR staff, DTB will be used to help mitigate risk and resolve system performance issues on the remaining technical milestones. DTB has proven experience in the development of similar reports required by the Federal Railroad Administration and other regulators, and has produced reports, maintenance documentation and operator manuals for various rail clients, including ABB Traction/Adtranz, Baltimore MTA, Metropolitan Transportation Authority (New York City Transit – Subway), New Jersey Transit (NJT) and Southeastern Pennsylvania Transportation Authority (SEPTA). DTB has



**Schedule H: Modifications to Personal Service and  
Miscellaneous Service Contracts**

also worked with clients in the aviation industry who are subject to rigorous test plan requirements. This expertise will be invaluable to MNR in the successful completion of the Railroad's final RSD documentation to the FRA.

MNR completed a responsibility review of Dayton T. Brown as defined in the All Agency Responsibility Guidelines in connection with this award recommendation, which yielded no significant adverse information (SAI).

MNR will receive the benefit of pricing negotiated by the U.S. General Services Administration (GSA) under its contract GS-230-0038K. Tasks 1-3 are proposed in the not to exceed amount of \$725,000, Task 4 General Engineering Support is proposed in the not to exceed amount of \$275,000. The total not to exceed amount of \$1,000,000 is to be funded by MNR's Operating Budget.

MARCH 2018

METRO-NORTH RAILROAD

LIST OF COMPETITIVE PROCUREMENTS FOR BOARD APPROVAL

Schedules Requiring Majority Vote:

**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.)

- |    |                            |             |                               |
|----|----------------------------|-------------|-------------------------------|
| 1. | ETS Contracting, Inc.      | \$7,500,000 | <u>Staff Summary Attached</u> |
|    | WRS Environmental Services | \$7,500,000 |                               |

**Asbestos Removal & Other Environmental Remediation Services**

Approval is requested to award two competitively solicited, five-year miscellaneous service contracts (RFP process, five proposals received), in the not to exceed amount of \$15,000,000 to ETS Contracting, Inc. (ETS) (\$7,500,000) and WRS Environmental Services (WRS) (\$7,500,000) to perform on-call system-wide asbestos, lead, and hazardous material abatement services on an as-needed, task order basis.

MNR's System Safety Department requires two contractors to: (a) abate lead, asbestos, and hazardous material from interior and exterior structures; (b) prepare filings, variance requests, and work plans for regulatory agency (DEC and EPA) review/approval; and (c) contain, test, and label waste for transport. On-call waste removal services are required throughout MNR's territory in both New York State and the State of Connecticut.

The objective for contracting with two contractors is to obtain competitive pricing for identified tasks, while maintaining a prequalified source for quick response remediation services. The two contractors, ETS and WRS received the highest-ranking scores based on the criteria for selection in the RFP and recommended for contract award.

A Request for Proposal (RFP), dated October 4, 2017, was prepared and advertised in the New York State Contract Reporter, the New York Post, Daily Challenge, El Diario and posted on MNR's website. On October 26, 2017, technical and cost proposals were received from ETS Contracting, Inc., International Asbestos Removal Inc., PAL Environmental Services, Pinnacle Environmental and WRS Environmental Services.

The criteria for contractor selection established in the RFP is as follows:

1. Cost
2. Project Plan, understanding of the workscope requirements and schedule.
3. Past experience with similar projects.
4. Confidence level, commitment of relevant resources to the project.

The Selection Committee was comprised of members representing the following departments: MNR's Procurement and Material Management, System Safety and Maintenance of Way (MoW). The

Committee evaluated the five proposals received in accordance with the selection criteria of the RFP. As a result of the evaluation, the Committee selected ETS Contracting, Inc. and WRS Environmental Services based on the ranking of their overall scores. ETS and WRS are experienced and qualified with providing abatement services in New York State and the State of Connecticut. All contract personnel performing these services must possess current NYDOL and CTDOL asbestos handling licenses.

Proposers provided unit prices for various tasks and units of measure historically performed under these types of agreements. The actual distribution of work to the two vendors will be based upon operational requirements, vendor capacity and proposed cost, with the goal of meeting service requirements. As this Board Authorization shall not guarantee any one vendor a fixed amount of work, the overall budget may be reallocated as necessary to ensure the most efficient and timely remediation services. The pricing submitted by ETS and WRS are the two lowest priced firms with the three non-selected firms averaging 6.53% higher in proposed pricing. ETS's proposed unit pricing is 1.1% below WRS's proposed unit pricing. Based on the evaluation of all costs submitted by ETS and WRS, their pricing is deemed fair and reasonable for the level of service expected to be provided.

MNR completed a responsibility review of ETS Contracting Inc. and WRS Environmental Services as defined in the All Agency Responsibility Guidelines in connection with this award recommendation, which yielded no significant adverse information (SAI).

Board approval is requested for two awards in the not to exceed amount of \$15,000,000 (\$7.5M each) for a duration of five years and is to be funded by the MNR Operating, Capital Budgets and by CDOT on a task-by-task basis.



## Schedule G: Miscellaneous Service Contracts

<b>Item Number</b> G						<b>SUMMARY INFORMATION</b>																			
<b>Dept. &amp; Dept. Head Name:</b> Procurement & Material Management, Al Muir, Sr. Director.						<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%; padding: 2px;"> <b>Vendor Name</b>            ETS Contracting, Inc.            WRS Environmental Services         </td> <td style="width: 30%; padding: 2px;"> <b>Contract Number</b>            1000094748            1000099124         </td> </tr> </table>		<b>Vendor Name</b> ETS Contracting, Inc. WRS Environmental Services	<b>Contract Number</b> 1000094748 1000099124																
<b>Vendor Name</b> ETS Contracting, Inc. WRS Environmental Services	<b>Contract Number</b> 1000094748 1000099124																								
<b>Division &amp; Division Head Name:</b>  						<b>Description</b> Asbestos Removal & Other Environmental Remediation Services																			
 						<b>Total Amount</b> \$15,000,000 (not-to-exceed) (ETS Contracting Inc. - \$7,500,000, WRS Environmental Services \$7,500,000)																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 10%;">Order</th> <th style="width: 20%;">To</th> <th style="width: 15%;">Date</th> <th style="width: 15%;">Approval</th> <th style="width: 10%;">Info</th> <th style="width: 10%;">Other</th> </tr> <tr> <td>1</td> <td>M-N Comm.Mtg.</td> <td>3-19-18</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>MTA Board Mtg.</td> <td>3-21-18</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> </table>						Order	To	Date	Approval	Info	Other	1	M-N Comm.Mtg.	3-19-18	X			2	MTA Board Mtg.	3-21-18	X			<b>Contract Term (Including Options, if any)</b> Five years	
Order	To	Date	Approval	Info	Other																				
1	M-N Comm.Mtg.	3-19-18	X																						
2	MTA Board Mtg.	3-21-18	X																						
 						<b>Option(s) included in Total Amount?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No																			
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Order	Approval	Order	Approval																						
X	President <i>CNR</i>	X	Sr. V.P. Operations <i>JK</i>																						
X	V.P. Finance & IT <i>KP</i>	X	V.P. & General Counsel <i>FLV</i>																						
X	V.P. Capital Programs																								
 						<b>Solicitation Type</b> <input checked="" type="checkbox"/> RFP <input type="checkbox"/> Bid <input type="checkbox"/> Other:																			
 						<b>Funding Source</b> <input checked="" type="checkbox"/> Operating <input checked="" type="checkbox"/> Capital <input type="checkbox"/> Federal <input checked="" type="checkbox"/> Other: CDOT																			

### Narrative

#### I. PURPOSE/RECOMMENDATION:

Approval is requested to award two competitively solicited, five-year miscellaneous service contracts (RFP process, five proposals received), in the not to exceed amount of \$15,000,000 to ETS Contracting, Inc. (ETS) (\$7,500,000) and WRS Environmental Services (WRS) (\$7,500,000) to perform on-call system-wide asbestos, lead, and hazardous material abatement services on an as-needed, task order basis.

#### II. DISCUSSION:

MNR's System Safety Department requires two contractors to: (a) abate lead, asbestos, and hazardous material from interior and exterior structures; (b) prepare filings, variance requests, and work plans for regulatory agency (DEC and EPA) review/approval; and (c) contain, test, and label waste for transport. On-call waste removal services are required throughout MNR's territory in both New York State and the State of Connecticut.

The objective for contracting with two contractors is to obtain competitive pricing for identified tasks, while maintaining a prequalified source for quick response remediation services. The two contractors, ETS and WRS received the highest-ranking scores based on the criteria for selection in the RFP and recommended for contract award.

A Request for Proposal (RFP), dated October 4, 2017, was prepared and advertised in the New York State Contract Reporter, the New York Post, Daily Challenge, El Diario and posted on MNR's website.

On October 26, 2017, technical and cost proposals were received from ETS Contracting, Inc., International Asbestos Removal Inc., PAL Environmental Services, Pinnacle Environmental and WRS Environmental Services.

The criteria for contractor selection established in the RFP is as follows:

1. Cost
2. Project Plan, understanding of the workscope requirements and schedule.
3. Past experience with similar projects.
4. Confidence level, commitment of relevant resources to the project.

The Selection Committee was comprised of members representing the following departments: MNR's Procurement and Material Management, System Safety and Maintenance of Way (MoW). The Committee evaluated the five proposals received in accordance with the selection criteria of the RFP. As a result of the evaluation, the Committee selected ETS Contracting, Inc. and WRS Environmental Services based on the ranking of their overall scores. ETS and WRS are experienced and qualified with providing abatement services in New York State and the State of Connecticut. All contract personnel performing these services must possess current NYDOL and CTDOL asbestos handling licenses.

Proposers provided unit prices for various tasks and units of measure historically performed under these types of agreements. The actual distribution of work to the two vendors will be based upon operational requirements, vendor capacity and proposed cost, with the goal of meeting service requirements. As this Board Authorization shall not guarantee any one vendor a fixed amount of work, the overall budget may be reallocated as necessary to ensure the most efficient and timely remediation services. The pricing submitted by ETS and WRS are the two lowest priced firms with the three non-selected firms averaging 6.53% higher in proposed pricing. ETS's proposed unit pricing is 1.1% below WRS's proposed unit pricing. Based on the evaluation of all costs submitted by ETS and WRS, their pricing is deemed fair and reasonable for the level of service expected to be provided.

MNR completed a responsibility review of ETS Contracting Inc. as defined in the All Agency Responsibility Guidelines in connection with this award recommendation, which yielded no significant adverse information (SAI).

MNR completed a responsibility review of WRS Environmental Services as defined in the All Agency Responsibility Guidelines in connection with this award recommendation, which yielded no significant adverse information (SAI).

### **III. D/M/WBE INFORMATION:**

The MTA Department of Diversity and Civil Rights (DDCR) is reviewing the goal requirements for these contracts. No awards will be issued without DDCR concurrence.

### **IV. IMPACT ON FUNDING:**

Board approval is requested for two awards in the not to exceed amount of \$15,000,000 (\$7.5M each) for a duration of five years and is to be funded by the MNR Operating, Capital Budgets and by CDOT on a task-by-task basis.

### **V. ALTERNATIVES:**

MNR does not have the available in-house staff who possess NYDOL and CTDOL asbestos handling licenses and experience to complete the full spectrum of lead, asbestos, and hazardous material abatement.





**Metro-North Railroad**

# **Operations Report**

Performance Summary			2018 Data			2017 Data	
			Annual Goal	February	YTD thru February	February	YTD thru February
<b>On Time Performance</b> <i>(Trains that arrive at their final destination within 5 minutes 59 seconds of scheduled arrival time)</i>	<b>System</b>	<b>Overall</b>	<b>93.0%</b>	<b>96.3%</b>	<b>94.2%</b>	<b>95.1%</b>	<b>95.7%</b>
		AM Peak	93.0%	95.2%	91.6%	93.8%	94.6%
		AM Reverse Peak	93.0%	98.3%	96.1%	96.2%	96.6%
		PM Peak	93.0%	97.3%	93.5%	95.1%	95.3%
		<b>Total Peak</b>	<b>93.0%</b>	<b>96.6%</b>	<b>93.1%</b>	<b>94.7%</b>	<b>95.2%</b>
		Off Peak Weekday	93.0%	94.9%	93.2%	93.4%	94.3%
		Weekend	93.0%	98.5%	97.9%	98.9%	98.5%
	<b>Hudson Line</b>	<b>Overall</b>	<b>93.0%</b>	<b>95.5%</b>	<b>94.2%</b>	<b>95.7%</b>	<b>96.4%</b>
		AM Peak	93.0%	93.9%	92.0%	92.7%	94.3%
		AM Reverse Peak	93.0%	98.6%	98.2%	95.2%	97.2%
		PM Peak	93.0%	97.1%	93.4%	96.1%	96.4%
		<b>Total Peak</b>	<b>93.0%</b>	<b>95.9%</b>	<b>93.4%</b>	<b>94.4%</b>	<b>95.6%</b>
		Off Peak Weekday	93.0%	93.6%	92.5%	94.6%	95.3%
		Weekend	93.0%	98.0%	98.1%	99.3%	99.0%
	<b>Harlem Line</b>	<b>Overall</b>	<b>93.0%</b>	<b>97.6%</b>	<b>94.9%</b>	<b>95.1%</b>	<b>96.0%</b>
		AM Peak	93.0%	97.5%	91.5%	96.3%	96.4%
		AM Reverse Peak	93.0%	98.1%	93.2%	97.2%	96.9%
		PM Peak	93.0%	97.1%	93.7%	94.5%	94.8%
		<b>Total Peak</b>	<b>93.0%</b>	<b>97.4%</b>	<b>92.7%</b>	<b>95.7%</b>	<b>95.8%</b>
		Off Peak Weekday	93.0%	96.9%	94.9%	92.5%	94.4%
		Weekend	93.0%	99.0%	98.5%	98.7%	99.0%
	<b>New Haven Line</b>	<b>Overall</b>	<b>93.0%</b>	<b>95.9%</b>	<b>93.8%</b>	<b>94.8%</b>	<b>95.0%</b>
		AM Peak	93.0%	94.3%	91.5%	92.5%	93.3%
		AM Reverse Peak	93.0%	98.5%	97.6%	95.7%	96.1%
		PM Peak	93.0%	97.7%	93.5%	95.0%	95.1%
		<b>Total Peak</b>	<b>93.0%</b>	<b>96.3%</b>	<b>93.2%</b>	<b>94.0%</b>	<b>94.5%</b>
		Off Peak Weekday	93.0%	94.2%	92.4%	93.4%	93.8%
		Weekend	93.0%	98.5%	97.2%	98.7%	97.8%
<b>Operating Statistics</b>							
	<b>Trains Scheduled</b>			<b>17,574</b>	<b>36,951</b>	<b>17,565</b>	<b>36,824</b>
	<b>Avg. Delay per Late Train (min)</b> <small>excluding trains cancelled or terminated</small>			13.1	15.0	12.8	12.3
	<b>Trains Over 15 min. Late</b> <small>excluding trains cancelled or terminated</small>		2,300	136	517	169	303
	<b>Trains Canceled</b>		230	10	118	60	61
	<b>Trains Terminated</b>		230	8	35	33	46
	<b>Percent of Scheduled Trips Completed</b>		99.8%	99.9%	99.6%	99.5%	99.7%
<b>Consist Compliance</b> <i>(Percent of trains where the number of seats provided was greater than or equal to the required number of seats per loading standards)</i>	<b>System</b>	<b>Overall</b>	<b>99.0%</b>	<b>99.0%</b>	<b>99.0%</b>	<b>98.8%</b>	<b>99.0%</b>
		AM Peak	98.0%	97.9%	97.9%	97.5%	98.1%
		AM Reverse Peak	99.5%	100.0%	100.0%	100.0%	100.0%
		PM Peak	98.0%	97.4%	97.4%	96.5%	97.2%
		<b>Total Peak</b>	<b>98.0%</b>	<b>98.0%</b>	<b>98.0%</b>	<b>97.5%</b>	<b>98.0%</b>
		Off Peak Weekday	99.5%	99.5%	99.5%	99.5%	99.5%
		Weekend	99.5%	99.8%	99.8%	99.9%	99.9%
	<b>Hudson Line</b>	AM Peak	99.5%	99.3%	99.6%	99.9%	99.9%
		PM Peak	99.5%	98.8%	98.9%	99.5%	99.8%
	<b>Harlem Line</b>	AM Peak	98.5%	97.3%	97.1%	96.9%	97.5%
		PM Peak	98.5%	98.4%	98.4%	95.8%	96.7%
	<b>New Haven Line</b>	AM Peak	97.5%	97.4%	97.3%	96.5%	97.4%
		PM Peak	97.5%	95.7%	95.6%	95.0%	96.0%

**SYSTEM Category of Delay**

Delay Minutes / Delay Threshold	% Total	January	2018 Data YTD thru February		2017 Data YTD thru February		YTD 2018 Vs 2017
Engineering (Scheduled)	8.4%	225	115	341	122	346	-6
Engineering (Unscheduled)	35.2%	1,583	481	2,063	228	681	1,382
Maintenance of Equipment	13.9%	587	191	778	229	589	189
Transportation	4.8%	55	65	120	62	140	-20
Capital Projects	3.1%	9	42	51	0	5	45
Weather and Environmental	0.7%	729	10	739	832	889	-150
Police	7.5%	242	103	345	80	157	188
Customers	4.4%	70	60	130	58	119	11
Other	21.9%	74	299	373	24	135	238
3rd Party Operations	0.1%	4	2	6	0	0	6
<b>TOTAL</b>	<b>100.0%</b>	<b>3,578</b>	<b>1,366</b>	<b>4,944</b>	<b>1,633</b>	<b>3,060</b>	<b>1,884</b>

HUDSON LINE	% Total	January	February	YTD thru February	February	YTD thru February	YTD 2018 Vs 2017
Engineering	43.6%	831	176	1,007	60	170	837
Maintenance of Equipment	21.0%	126	85	211	103	168	43
Transportation	5.2%	12	21	34	15	26	8
Capital Projects	8.4%	8	34	42	0	0	42
Weather and Environmental	0.2%	99	1	100	193	220	-120
Police	7.2%	15	29	44	16	28	16
Customers	3.5%	8	14	22	12	22	0
Other	10.9%	6	44	50	0	13	37
3rd Party Operations	0.0%	2	0	2	0	0	2
<b>TOTAL</b>	<b>100.0%</b>	<b>1,107</b>	<b>404</b>	<b>1,512</b>	<b>399</b>	<b>647</b>	<b>865</b>

HARLEM LINE	% Total	January	February	YTD thru February	February	YTD thru February	YTD 2018 Vs 2017
Engineering	47.3%	496	138	634	90	228	406
Maintenance of Equipment	14.7%	205	43	248	45	175	73
Transportation	2.4%	14	7	22	12	32	-10
Capital Projects	2.1%	0	6	6	0	0	6
Weather and Environmental	1.7%	238	5	243	252	267	-24
Police	5.1%	104	15	118	32	51	67
Customers	4.8%	32	14	46	18	30	16
Other	21.9%	9	64	73	1	35	38
3rd Party Operations	0.0%	0	0	0	0	0	0
<b>TOTAL</b>	<b>100.0%</b>	<b>1,098</b>	<b>292</b>	<b>1,390</b>	<b>450</b>	<b>818</b>	<b>572</b>

NEW HAVEN LINE	% Total	January	February	YTD thru February	February	YTD thru February	YTD 2018 Vs 2017
Engineering	42.2%	480	282	762	199	629	133
Maintenance of Equipment	9.3%	257	62	320	80	246	74
Transportation	5.4%	29	36	65	35	81	-16
Capital Projects	0.3%	0	2	2	0	5	-3
Weather and Environmental	0.6%	392	4	397	387	402	-5
Police	8.8%	124	59	183	32	79	104
Customers	4.6%	30	31	62	28	66	-4
Other	28.6%	59	191	250	23	87	163
3rd Party Operations	0.3%	2	2	4	0	0	4
<b>TOTAL</b>	<b>100.0%</b>	<b>1,373</b>	<b>669</b>	<b>2,045</b>	<b>784</b>	<b>1,595</b>	<b>450</b>





**EVENTS RESULTING IN 10 or MORE LATE (L), CANCELED (C) or TERMINATED (T) TRAINS**

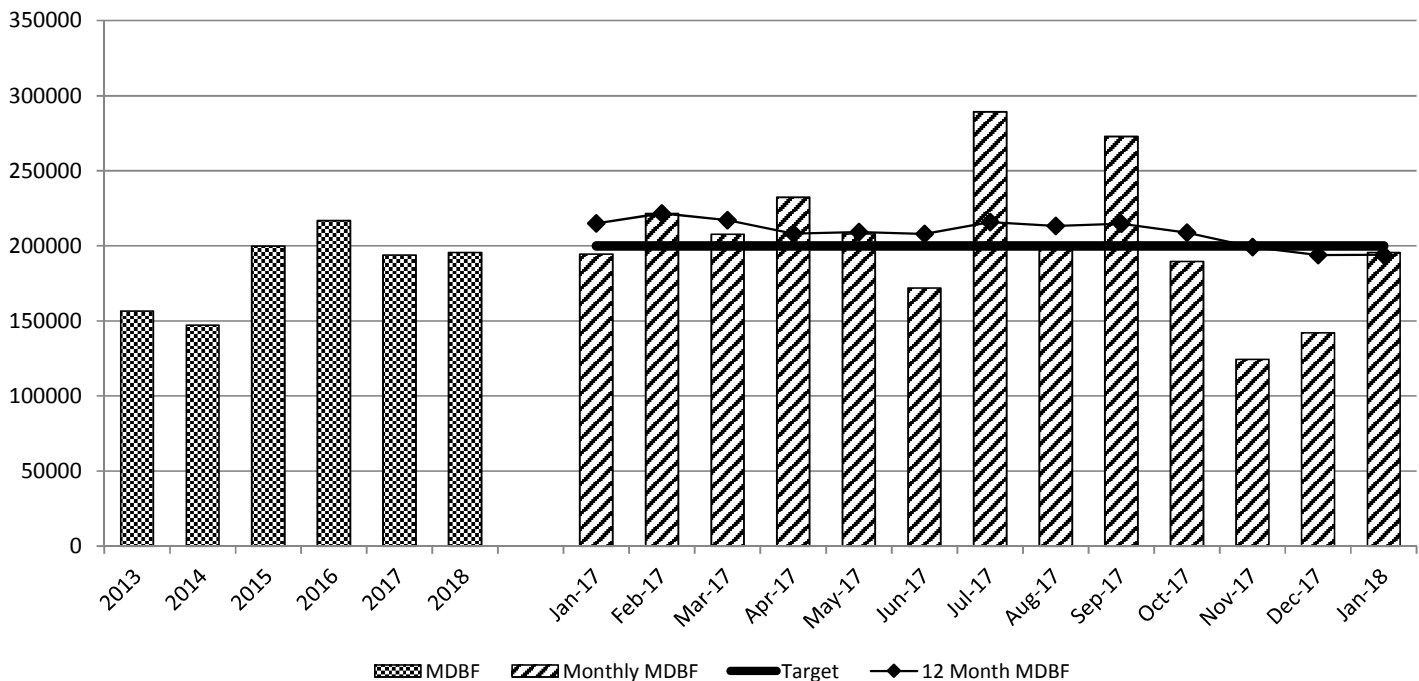
Date	Day	DESCRIPTION OF EVENT	Number of Late Trains												TOTAL		
			AM Peak			AM Reverse			PM Peak			Off Peak			Late Cxld Term		
			L	C	T	L	C	T	L	C	T	L	C	T			
02/07	Wed	Third Rail failure on track 2 south of 65th Street.	0	0	0	0	0	0	2	0	0	12	0	0	14	0	0
02/08	Thu	Unable to normal the 21 Switch at CP3.	0	0	0	0	0	0	33	0	0	25	0	0	58	0	0
02/12	Mon	Train 629 struck trespasser on track 1 at Fleetwood Station.	0	0	0	0	0	0	0	0	0	10	0	1	10	0	1
02/14	Wed	After Harlem River Line Bridge opening, unable to close track 2 and track 4 side.	0	0	0	0	0	0	0	0	0	58	0	0	58	0	0
02/21	Wed	Train 1507 struck a trespasser on track 3 west of Fairfield Metro Station.	39	0	1	5	0	0	0	0	0	5	0	0	49	0	1
<b>TOTAL FOR MONTH</b>			39	0	1	5	0	0	35	0	0	110	0	1	189	0	2
															<b>191</b>		

	Equip- ment Type	Total Fleet Size	2018 Data						2017 Data		
			MDBF Goal (miles)	Jan MDBF (miles)	Primary Failure Goal	Jan No. of Primary Failures	YTD MDBF thru Jan (miles)	12 month MDBF Rolling Avg (miles)	Jan MDBF (miles)	Jan No. of Primary Failures	YTD MDBF thru Jan (miles)
<b>Mean Distance Between Failures</b>	M2	36	20,000	103,053	2	0	103,053	32,429	22,416	3	22,416
	M8	405	350,000	314,782	7	8	314,782	301,850	364,781	7	364,781
	M3	138	120,000	69,345	3	4	69,345	99,267	78,316	4	78,316
	M7	334	440,000	509,789	4	4	509,789	326,894	199,698	10	199,698
	Coach	209	260,000	245,049	6	6	245,049	322,288	362,831	4	362,831
	P-32	31	27,000	19,546	7	10	19,546	24,341	38,086	5	38,086
	BL-20	12	13,000	20,343	3	2	20,343	25,362	40,164	1	40,164
	<b>Fleet</b>	<b>1165</b>	<b>200,000</b>	<b>195,420</b>	<b>32</b>	<b>34</b>	<b>195,420</b>	<b>193,960</b>	<b>194,496</b>	<b>34</b>	<b>194,496</b>
	M2/8		260,000	327,664	9	8	327,664	243,371	262,072	10	262,072
	M3/7		300,000	289,567	7	8	289,567	247,631	165,017	14	165,017
	Diesel/Coach		110,000	94,802	16	18	94,802	120,237	168,192	10	168,192

Mean Distance Between Failures (MDBF) is the average number of miles a railcar or locomotive travels in revenue service before breaking down and causing a delay. The higher the MDBF, the more reliable the equipment and the service.

## ALL FLEETS

### Mean Distance Between Failures 2013 - 2018



**West of Hudson  
Performance Summary**

			2018 Data			2017 Data	
			Annual Goal	February	YTD thru February	February	YTD thru February
<b>On Time Performance</b> <i>(Trains that arrive at their final destination within 5 minutes 59 seconds of scheduled arrival time)</i>	<b>West of Hudson Total</b>	<b>Overall</b>	<b>95.5%</b>	<b>95.1%</b>	<b>92.8%</b>	<b>94.0%</b>	<b>95.0%</b>
		AM Peak	95.5%	94.7%	90.4%	94.4%	92.9%
		PM Peak	95.5%	90.7%	91.9%	89.5%	91.7%
		<b>Total Peak</b>	<b>95.5%</b>	<b>92.8%</b>	<b>91.1%</b>	<b>92.0%</b>	<b>92.3%</b>
		Off Peak Weekday	95.5%	95.0%	92.3%	94.6%	95.6%
		Weekend	95.5%	98.9%	96.3%	95.7%	97.4%
	<b>Pascack Valley Line</b>	<b>Overall</b>	<b>96.5%</b>	<b>99.0%</b>	<b>95.8%</b>	<b>95.5%</b>	<b>96.3%</b>
		AM Peak	96.5%	97.4%	94.4%	96.7%	95.8%
		PM Peak	96.5%	98.5%	97.1%	93.2%	93.8%
		<b>Total Peak</b>	<b>96.5%</b>	<b>97.9%</b>	<b>95.7%</b>	<b>95.1%</b>	<b>94.9%</b>
		Off Peak Weekday	96.5%	99.2%	94.9%	95.2%	96.2%
		Weekend	96.5%	100.0%	97.6%	96.4%	98.2%
	<b>Port Jervis Line</b>	<b>Overall</b>	<b>95.0%</b>	<b>89.7%</b>	<b>88.6%</b>	<b>91.9%</b>	<b>93.1%</b>
		AM Peak	95.0%	91.2%	85.0%	91.2%	88.9%
		PM Peak	95.0%	81.6%	85.8%	85.1%	89.3%
		<b>Total Peak</b>	<b>95.0%</b>	<b>86.4%</b>	<b>85.4%</b>	<b>88.2%</b>	<b>89.1%</b>
		Off Peak Weekday	95.0%	89.1%	88.7%	93.7%	94.7%
		Weekend	95.0%	96.9%	94.2%	94.6%	96.2%
<b>Operating Statistics</b>							
<b>Trains Scheduled</b>				<b>1,546</b>	<b>3,259</b>	<b>1,546</b>	<b>3,234</b>
<b>Avg. Delay per Late Train (min)</b>				18.3	21.4	24.5	21.6
excluding trains canceled or terminated							
<b>Trains Over 15 min. Late</b>			300	28	100	37	68
excluding trains canceled or terminated							
<b>Trains Canceled</b>			60	5	17	10	10
<b>Trains Terminated</b>			60	6	10	6	8
<b>Percent of Scheduled Trips Completed</b>			99.4%	99.3%	99.2%	99.0%	99.4%
<b>Consist Compliance*</b> <i>(Percent of trains were the number of coaches provided met the scheduled requirement)</i>	<b>System - AM</b>	<b>Overall</b>	<b>99.0%</b>	<b>99.3%</b>	<b>96.9%</b>	<b>99.7%</b>	<b>99.8%</b>
	<b>Pascack Valley - AM</b>		99.0%	99.1%	96.2%	99.7%	99.7%
	<b>Port Jervis - AM</b>		99.0%	99.7%	97.7%	99.8%	99.8%

\* Consist Compliance Reporting for West of Hudson PM Peak trains is currently unavailable.



**WEST OF HUDSON**

**EVENTS RESULTING IN 5 or MORE LATE (L), CANCELED (C) or TERMINATED (T) TRAINS**

Date	Day	DESCRIPTION OF EVENT	Number of Late Trains												TOTAL		
			AM Peak			PM Peak			Off Peak			Weekend					
			L	C	T	L	C	T	L	C	T	L	C	T	Late	Cxld	Term
02/20	Tue	Train 66 terminated at Salisbury Mills account engine shut down.	0	0	0	3	0	0	1	0	2	0	0	0	4	0	2
TOTAL FOR MONTH			0	0	0	3	0	0	1	0	2	0	0	0	4	0	2
															6		

## FEBRUARY 2018 STANDEE REPORT

### East of Hudson

FEBRUARY 2018 STANDEES REPORT

East of Hudson			FEB 2017	YTD 2017	FEB 2018	YTD 2018
Daily Average AM Peak	Hudson Line	Program Standees	0	0	0	0
		Add'l Standees	1	1	7	21
		<b>Total Standees</b>	<b>1</b>	<b>1</b>	<b>7</b>	<b>21</b>
	Harlem Line	Program Standees	0	0	0	0
		Add'l Standees	61	56	109	128
		<b>Total Standees</b>	<b>61</b>	<b>56</b>	<b>109</b>	<b>128</b>
	New Haven Line	Program Standees	0	0	0	0
		Add'l Standees	54	33	55	87
		<b>Total Standees</b>	<b>54</b>	<b>33</b>	<b>55</b>	<b>87</b>
	<b>EAST OF HUDSON TOTAL - AM PEAK</b>		<b>116</b>	<b>90</b>	<b>171</b>	<b>237</b>
Daily Average PM Peak	Hudson Line	Program Standees	0	0	0	0
		Add'l Standees	6	3	0	8
		<b>Total Standees</b>	<b>6</b>	<b>3</b>	<b>0</b>	<b>8</b>
	Harlem Line	Program Standees	0	0	0	0
		Add'l Standees	65	43	12	38
		<b>Total Standees</b>	<b>65</b>	<b>43</b>	<b>12</b>	<b>38</b>
	New Haven Line	Program Standees	0	0	0	0
		Add'l Standees	146	122	98	136
		<b>Total Standees</b>	<b>146</b>	<b>122</b>	<b>98</b>	<b>136</b>
	<b>EAST OF HUDSON TOTAL - PM PEAK</b>		<b>217</b>	<b>168</b>	<b>110</b>	<b>181</b>

### West of Hudson\*

West of Hudson*			FEB 2017	YTD 2017	FEB 2018	YTD 2018
Daily Average	Port Jervis	Program Standees	0	0	0	0
		Add'l Standees	0	0	0	0
AM Peak	Line	Total Standees	0	0	0	0
	Pascack	Program Standees	0	0	0	0
		Add'l Standees	0	0	0	0
	Valley Line	Total Standees	0	0	0	0
WEST OF HUDSON TOTAL - AM PEAK			0	0	0	0

\* Consist Compliance and Standee Reporting for West of Hudson PM Peak trains is currently unavailable.

### Definitions

East of Hudson Weekday standees are calculated based on the most recent average weekday customer counts for the train's maximum load point. For Hudson, Harlem and most New Haven Line trains, this point occurs at GCT/125th St.. However, for certain New Haven Line trains, this maximum load point is east of Stamford.

"Program Standees" is the average number of customers in excess of programmed seating capacity.

"Additional Standees" reflect the impact of reduced train car consists reported as consist compliance less than 100%.

**Note:** These statistics do not include the effects of daily ridership variation or uneven distribution of customers within trains. Holidays and Special Events for which there are special equipment programs are not included.

## ELEVATOR AND ESCALATOR OPERATING REPORT

### FOR MONTH OF February 2018

Elevator Availability	2018		2017	
	February	Year to Date	February	Year to Date
Grand Central Terminal	93.75%	93.75%	94.44%	97.22%
Harlem	100.00%	99.93%	100.00%	100.00%
Hudson	100.00%	99.97%	100.00%	100.00%
New Haven	100.00%	100.00%	100.00%	99.88%
Overall Average	98.44%	98.41%	98.61%	99.28%

*GCT Availability for February 2018 is impacted by the NE-1 Elevator being Out of Service due to East Side Access construction since February 2017.*

Escalator Availability	2018		2017	
	February	Year to Date	February	Year to Date
Grand Central Terminal	96.08%	93.75%	95.75%	97.87%
White Plains	100.00%	100.00%	100.00%	100.00%
Overall Average	98.04%	96.88%	97.87%	98.94%

*Escalator #8 (located at 47th Street Cross Passage to East Spine) was taken out of service on 11/9/17 for motor and gearbox repair. Was returned to service on 2/11/18.*



**Metro-North Railroad**

# **Finance Report**

**MTA METRO-NORTH RAILROAD  
JANUARY 2018 FINANCIAL AND RIDERSHIP REPORT  
EXECUTIVE SUMMARY**

**SUMMARY**

January 2018 Net Deficit (Non-Reimbursable and Reimbursable) of \$74.8 million was \$0.2 million or 0.2% unfavorable vs. the Adopted Budget. Major drivers of the unfavorable results include \$3.3 million of lower Non-Reimbursable Revenues mainly due to a reimbursement delay related to the rescheduling of the NYS Grade Crossing Project (\$2.5 million) and lower Farebox Revenue of \$1.0 million due to adverse weather. Partly offsetting these unfavorable results were lower Non-Reimbursable Expenses of \$3.1 million mainly due to favorable maintenance contracts and professional services.

Results for the month include the financial impact of \$2.4 million for Winter Storm Grayson on January 4<sup>th</sup> with a Farebox revenue loss estimated at \$0.7 million based on 70,000 fewer non-commutation ticket sales. Additionally, expenses for preparation and cleanup reflect \$1.6 million in overtime and fringe costs, as well as non-labor costs of \$0.1 million for snow removal and de-icing materials.

January 2018 Reimbursable results of \$13.5 million was \$8.6 million favorable vs. the Adopted Budget primarily due to the timing of several capital projects including Waterbury Branch Cab Signal, C-30 Track Program, Harlem & Hudson Line Power Improvements and the Signal Replacement from Greenwich to South Norwalk.

**REVENUE/RIDERSHIP**

- **Farebox Revenue** – \$1.0 million or 1.8% unfavorable vs. the Adopted Budget primarily due to due to adverse weather, particularly Winter Storm Grayson.
- **Total Rail Ridership** for January of 6.8 million was 2.7% unfavorable vs. the Adopted Budget and 2.2% unfavorable compared to 2017.
  - East of Hudson Ridership of 6.6 million was 2.7% unfavorable vs. the Adopted Budget and 2.1% unfavorable compared to 2017.
  - East of Hudson Commutation ridership of 4.0 million was 1.0% unfavorable vs. the Adopted Budget and 1.0% unfavorable vs. 2017.
  - East of Hudson Non-commutation ridership of 2.6 million was 5.1% unfavorable vs. the Adopted Budget and 3.7% unfavorable vs. 2017.
  - West of Hudson Ridership of 0.1 million was 5.1% unfavorable vs. the Adopted Budget and 6.9% unfavorable vs. 2017.
- **Other Operating Revenue** – \$2.3 million unfavorable vs. the Adopted Budget primarily due to a reimbursement delay related to the rescheduling of the NYS Grade Crossing Project.
- **Capital and Other Reimbursements** – \$8.6 million unfavorable vs. the Adopted Budget due to scheduling and timing changes noted above.

**TOTAL EXPENSES**

Total expenses of \$150.0 million were \$11.7 million or 7.2% favorable vs. the Adopted Budget.

**Labor Expenses (including fringes and overhead recoveries)** of \$95.6 million were \$0.9 million unfavorable vs. the Adopted Budget.

- **Payroll** – \$0.5 million unfavorable vs. the Adopted Budget due to holiday pay for represented employees.
- **Overtime** – \$0.6 million unfavorable vs. the Adopted Budget due to higher Non-Reimbursable expenses for service coverage, increased infrastructure and facility maintenance due to the cold weather, and Winter Storm Grayson related overtime.



**Non-Labor Expenses** of \$30.5 million were \$11.1 million favorable vs. the Adopted Budget.

- **Electric Power** – \$0.7 million favorable due to lower rates.
- **Fuel** – \$0.2 million unfavorable due to a higher diesel fuel price per gallon.
- **Maintenance & Other Operating Contracts** – \$2.9 million favorable vs. the Adopted Budget primarily due to lower Non-Reimbursable expenses for various maintenance contracts and lower ferry services due to weather.
- **Professional Services** – \$6.2 million favorable vs. the Adopted Budget reflecting lower Reimbursable project activity (Positive Train Control and the Signal Replacement from Greenwich to South Norwalk) as well as lower Non-Reimbursable expenses for engineering and consulting services, ridership analysis, legal fees, medical services and outside training.
- **Materials & Supplies** – \$0.9 million favorable vs. the Adopted Budget due to lower Reimbursable project activity (Waterbury Branch Cab Signaling and Track and Turnout Replacement Programs). These favorable results were partially offset by higher Non-Reimbursable expenses for rolling stock parts and supplies for reliability centered maintenance programs and running repairs.
- **Other Business Expenses** – \$0.5 million favorable vs. the Adopted Budget due to lower Non-Reimbursable expenses for subsidy payments to NJT for West of Hudson operations, travel meetings and conventions and other miscellaneous expenses.

**Depreciation and Other Non-Cash Liability Adjustments** were \$1.4 million favorable vs. the Adopted Budget primarily due to lower capitalization of assets than budgeted due to timing differences in project completions and assets reaching beneficial use.

#### **CASH DEFICIT SUMMARY**

The January 2018 Net Cash Deficit of \$25.9 million was \$27.2 million or 51.2% favorable to the Adopted Budget. This is mainly due to revised milestone scheduling of Operating Capital Projects (NYS Grade Crossing Improvements, 525 North Broadway Space Consolidation, Track Geometry Car, GP35 Locomotive Overhaul, Cameras and Audio for Non-M8 Fleet and Bridge Monitor Installation) and 2017 capital project reimbursements received in 2018.

#### **FINANCIAL PERFORMANCE MEASURES**

January 2018 performance indicators primarily reflect favorable overall expenses:

- Adjusted Farebox Operating Ratio of 58.5% was 6.4% favorable vs. the Adopted Budget.
- Adjusted Cost per Passenger of \$15.80 was \$2.37 favorable to the Adopted Budget.
- Revenue per Passenger of \$8.40 was \$0.08 favorable vs. the Adopted Budget.

**MTA METRO-NORTH RAILROAD**  
**FEBRUARY FINANCIAL PLAN - 2018 ADOPTED BUDGET**  
**ACCRUAL STATEMENT of OPERATIONS by CATEGORY**  
**January 2018**  
(\$ in millions)

SCHEDULE I - A

	Nonreimbursable				Reimbursable				Total			
	Adopted Budget	Actual	Favorable (Unfavorable)		Adopted Budget	Actual	Favorable (Unfavorable)		Adopted Budget	Actual	Favorable (Unfavorable)	
			Variance	Percent			Variance	Percent			Variance	Percent
<b>Revenue</b>												
Farebox Revenue	\$57.876	\$56.845	(\$1.031)	(1.8)	\$0.000	\$0.000	\$0.000	-	\$57.876	\$56.845	(\$1.031)	(1.8)
Vehicle Toll Revenue	0.000	0.000	0.000	-	0.000	0.000	0.000	-	0.000	0.000	0.000	-
Other Operating Revenue	7.145	4.890	(2.255)	(31.6)	0.000	0.000	0.000	-	7.145	4.890	(2.255)	(31.6)
<i>Capital &amp; Other Reimbursements:</i>												
MTA	0.000	0.000	0.000	-	11.530	8.983	(2.546)	(22.1)	11.530	8.983	(2.546)	(22.1)
CDOT	0.000	0.000	0.000	-	9.894	3.625	(6.269)	(63.4)	9.894	3.625	(6.269)	(63.4)
Other	0.000	0.000	0.000	-	0.590	0.844	0.254	43.1	0.590	0.844	0.254	43.1
Total Capital and Other Reimbursements	0.000	0.000	0.000	-	22.014	13.453	(8.562)	(38.9)	22.014	13.453	(8.562)	(38.9)
<b>Total Revenue/Receipts</b>	<b>\$65.021</b>	<b>\$61.735</b>	<b>(\$3.286)</b>	<b>(5.1)</b>	<b>\$22.014</b>	<b>\$13.453</b>	<b>(\$8.562)</b>	<b>(38.9)</b>	<b>\$87.035</b>	<b>\$75.188</b>	<b>(\$11.847)</b>	<b>(13.6)</b>
<b>Expenses</b>												
<i>Labor:</i>												
Payroll	\$44.871	\$45.701	(\$0.829)	(1.8)	\$3.863	\$3.520	\$0.344	8.9	\$48.735	\$49.221	(\$0.486)	(1.0)
Overtime	8.588	9.281	(0.693)	(8.1)	1.707	1.595	0.112	6.6	10.295	10.875	(0.581)	(5.6)
Health and Welfare	10.220	10.216	0.004	0.0	1.318	1.144	0.173	13.2	11.538	11.360	0.177	1.5
OPEB Current Payment	2.750	2.874	(0.124)	(4.5)	0.000	0.000	0.000	-	2.750	2.874	(0.124)	(4.5)
Pensions	9.085	9.164	(0.079)	(0.9)	0.931	0.805	0.126	13.5	10.016	9.969	0.047	0.5
Other Fringe Benefits	10.693	10.447	0.246	2.3	0.948	0.875	0.073	7.7	11.640	11.322	0.319	2.7
Reimbursable Overhead	(4.194)	(3.752)	(0.442)	(10.5)	3.906	3.695	0.211	5.4	(0.288)	(0.057)	(0.231)	(80.1)
<b>Total Labor</b>	<b>\$82.013</b>	<b>\$83.930</b>	<b>(\$1.917)</b>	<b>(2.3)</b>	<b>\$12.673</b>	<b>\$11.634</b>	<b>\$1.039</b>	<b>8.2</b>	<b>\$94.685</b>	<b>\$95.564</b>	<b>(\$0.879)</b>	<b>(0.9)</b>
<i>Non-Labor:</i>												
Electric Power	\$7.330	\$6.620	\$0.711	9.7	\$0.000	\$0.000	\$0.000	-	\$7.330	\$6.620	\$0.711	9.7
Fuel	1.736	1.978	(0.242)	(14.0)	0.000	0.000	0.000	-	1.736	1.978	(0.242)	(14.0)
Insurance	1.486	1.423	0.063	4.2	0.239	0.257	(0.018)	(7.5)	1.725	1.680	0.045	2.6
Claims	0.092	0.006	0.086	93.4	0.000	0.000	0.000	-	0.092	0.006	0.086	93.4
Paratransit Service Contracts	0.000	0.000	0.000	-	0.000	0.000	0.000	-	0.000	0.000	0.000	-
Maintenance and Other Operating Contracts	9.501	6.941	2.559	26.9	0.656	0.305	0.351	53.5	10.157	7.246	2.910	28.7
Professional Service Contracts	4.415	1.941	2.473	56.0	3.920	0.188	3.732	95.2	8.335	2.130	6.205	74.4
Materials & Supplies	5.106	7.694	(2.588)	(50.7)	4.507	1.031	3.475	77.1	9.612	8.725	0.887	9.2
Other Business Expenses	2.613	2.065	0.548	21.0	0.020	0.037	(0.017)	(86.8)	2.633	2.102	0.531	20.2
<b>Total Non-Labor</b>	<b>\$32.278</b>	<b>\$28.668</b>	<b>\$3.610</b>	<b>11.2</b>	<b>\$9.342</b>	<b>\$1.819</b>	<b>\$7.523</b>	<b>80.5</b>	<b>\$41.620</b>	<b>\$30.487</b>	<b>\$11.133</b>	<b>26.7</b>
<i>Other Adjustments:</i>												
Other	0.000	0.000	0.000	-	0.000	0.000	0.000	-	0.000	0.000	0.000	-
<b>Total Other Adjustments</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>-</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>-</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>-</b>
<b>Total Expenses before Non-Cash Liability Adjts.</b>	<b>\$114.291</b>	<b>\$112.598</b>	<b>\$1.693</b>	<b>1.5</b>	<b>\$22.014</b>	<b>\$13.453</b>	<b>\$8.562</b>	<b>38.9</b>	<b>\$136.305</b>	<b>\$126.050</b>	<b>\$10.254</b>	<b>7.5</b>
Depreciation	20.542	19.112	1.430	7.0	0.000	0.000	0.000	-	20.542	19.112	1.430	7.0
OPEB Obligation	4.833	4.833	0.000	0.0	0.000	0.000	0.000	-	4.833	4.833	0.000	0.0
GASB68 Pension Adjustment	0.000	0.000	0.000	-	0.000	0.000	0.000	-	0.000	0.000	0.000	-
Environmental Remediation	0.000	0.000	0.000	-	0.000	0.000	0.000	-	0.000	0.000	0.000	-
<b>Total Expenses</b>	<b>\$139.666</b>	<b>\$136.543</b>	<b>\$3.123</b>	<b>2.2</b>	<b>\$22.014</b>	<b>\$13.453</b>	<b>\$8.562</b>	<b>38.9</b>	<b>\$161.680</b>	<b>\$149.996</b>	<b>\$11.685</b>	<b>7.2</b>
<b>Net Surplus/(Deficit)</b>	<b>(\$74.646)</b>	<b>(\$74.808)</b>	<b>(\$0.163)</b>	<b>(0.2)</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>-</b>	<b>(\$74.646)</b>	<b>(\$74.808)</b>	<b>(\$0.163)</b>	<b>(0.2)</b>
<i>Cash Conversion Adjustments:</i>												
Depreciation	20.542	19.112	(1.430)	(7.0)	0.000	0.000	0.000	-	20.542	19.112	(1.430)	(7.0)
Operating/Capital	(17.760)	(0.189)	17.571	98.9	0.000	0.000	0.000	-	(17.760)	(0.189)	17.571	98.9
Other Cash Adjustments	18.756	29.954	11.197	59.7	0.000	0.000	0.000	-	18.756	29.954	11.197	59.7
<b>Total Cash Conversion Adjustments</b>	<b>\$21.539</b>	<b>\$48.876</b>	<b>\$27.337</b>	<b>*</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>-</b>	<b>\$21.539</b>	<b>\$48.876</b>	<b>\$27.337</b>	<b>*</b>
<b>Net Cash Surplus/(Deficit)</b>	<b>(\$53.107)</b>	<b>(\$25.932)</b>	<b>\$27.175</b>	<b>51.2</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>-</b>	<b>(\$53.107)</b>	<b>(\$25.932)</b>	<b>\$27.175</b>	<b>51.2</b>

**Notes:**

-- 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%.

**MTA METRO-NORTH RAILROAD**  
**FEBRUARY FINANCIAL PLAN - 2018 ADOPTED BUDGET**  
**ACCRUAL STATEMENT of OPERATIONS by CATEGORY**  
**January Year-To-Date**  
(\$ in millions)

SCHEDULE I - B

	Nonreimbursable				Reimbursable				Total			
	Adopted Budget	Actual	Favorable (Unfavorable)		Adopted Budget	Actual	Favorable (Unfavorable)		Adopted Budget	Actual	Favorable (Unfavorable)	
			Variance	Percent			Variance	Percent			Variance	Percent
<b>Revenue</b>												
Farebox Revenue	\$57.876	\$56.845	(\$1.031)	(1.8)	\$0.000	\$0.000	\$0.000	-	\$57.876	\$56.845	(\$1.031)	(1.8)
Vehicle Toll Revenue	0.000	0.000	0.000	-	0.000	0.000	0.000	-	0.000	0.000	0.000	-
Other Operating Revenue	7.145	4.890	(2.255)	(31.6)	0.000	0.000	0.000	-	7.145	4.890	(2.255)	(31.6)
<i>Capital &amp; Other Reimbursements:</i>												
MTA	0.000	0.000	0.000	-	11.530	8.983	(2.546)	(22.1)	11.530	8.983	(2.546)	(22.1)
CDOT	0.000	0.000	0.000	-	9.894	3.625	(6.269)	(63.4)	9.894	3.625	(6.269)	(63.4)
Other	0.000	0.000	0.000	-	0.590	0.844	0.254	43.1	0.590	0.844	0.254	43.1
Total Capital and Other Reimbursements	0.000	0.000	0.000	-	22.014	13.453	(8.562)	(38.9)	22.014	13.453	(8.562)	(38.9)
<b>Total Revenue/Receipts</b>	<b>\$65.021</b>	<b>\$61.735</b>	<b>(\$3.286)</b>	<b>(5.1)</b>	<b>\$22.014</b>	<b>\$13.453</b>	<b>(\$8.562)</b>	<b>(38.9)</b>	<b>\$87.035</b>	<b>\$75.188</b>	<b>(\$11.847)</b>	<b>(13.6)</b>
<b>Expenses</b>												
<i>Labor:</i>												
Payroll	\$44.871	\$45.701	(\$0.829)	(1.8)	\$3.863	\$3.520	\$0.344	8.9	\$48.735	\$49.221	(\$0.486)	(1.0)
Overtime	8.588	9.281	(0.693)	(8.1)	1.707	1.595	0.112	6.6	10.295	10.875	(0.581)	(5.6)
Health and Welfare	10.220	10.216	0.004	0.0	1.318	1.144	0.173	13.2	11.538	11.360	0.177	1.5
OPEB Current Payment	2.750	2.874	(0.124)	(4.5)	0.000	0.000	0.000	-	2.750	2.874	(0.124)	(4.5)
Pensions	9.085	9.164	(0.079)	(0.9)	0.931	0.805	0.126	13.5	10.016	9.969	0.047	0.5
Other Fringe Benefits	10.693	10.447	0.246	2.3	0.948	0.875	0.073	7.7	11.640	11.322	0.319	2.7
Reimbursable Overhead	(4.194)	(3.752)	(0.442)	(10.5)	3.906	3.695	0.211	5.4	(0.288)	(0.057)	(0.231)	(80.1)
<b>Total Labor</b>	<b>\$82.013</b>	<b>\$83.930</b>	<b>(\$1.917)</b>	<b>(2.3)</b>	<b>\$12.673</b>	<b>\$11.634</b>	<b>\$1.039</b>	<b>8.2</b>	<b>\$94.685</b>	<b>\$95.564</b>	<b>(\$0.879)</b>	<b>(0.9)</b>
<i>Non-Labor:</i>												
Electric Power	\$7.330	\$6.620	\$0.711	9.7	\$0.000	\$0.000	\$0.000	-	\$7.330	\$6.620	\$0.711	9.7
Fuel	1.736	1.978	(0.242)	(14.0)	0.000	0.000	0.000	-	1.736	1.978	(0.242)	(14.0)
Insurance	1.486	1.423	0.063	4.2	0.239	0.257	(0.018)	(7.5)	1.725	1.680	0.045	2.6
Claims	0.092	0.006	0.086	93.4	0.000	0.000	0.000	-	0.092	0.006	0.086	93.4
Paratransit Service Contracts	0.000	0.000	0.000	-	0.000	0.000	0.000	-	0.000	0.000	0.000	-
Maintenance and Other Operating Contracts	9.501	6.941	2.559	26.9	0.656	0.305	0.351	53.5	10.157	7.246	2.910	28.7
Professional Service Contracts	4.415	1.941	2.473	56.0	3.920	0.188	3.732	95.2	8.335	2.130	6.205	74.4
Materials & Supplies	5.106	7.694	(2.588)	(50.7)	4.507	1.031	3.475	77.1	9.612	8.725	0.887	9.2
Other Business Expenses	2.613	2.065	0.548	21.0	0.020	0.037	(0.017)	(86.8)	2.633	2.102	0.531	20.2
<b>Total Non-Labor</b>	<b>\$32.278</b>	<b>\$28.668</b>	<b>\$3.610</b>	<b>11.2</b>	<b>\$9.342</b>	<b>\$1.819</b>	<b>\$7.523</b>	<b>80.5</b>	<b>\$41.620</b>	<b>\$30.487</b>	<b>\$11.133</b>	<b>26.7</b>
<i>Other Adjustments</i>												
Other	0.000	0.000	0.000	-	0.000	0.000	0.000	-	0.000	0.000	0.000	-
<b>Total Other Adjustments</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>-</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>-</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>-</b>
<b>Total Expenses before Non-Cash Liability Adjs.</b>	<b>\$114.291</b>	<b>\$112.598</b>	<b>\$1.693</b>	<b>1.5</b>	<b>\$22.014</b>	<b>\$13.453</b>	<b>\$8.562</b>	<b>38.9</b>	<b>\$136.305</b>	<b>\$126.050</b>	<b>\$10.254</b>	<b>7.5</b>
Depreciation	20.542	19.112	1.430	7.0	0.000	0.000	0.000	-	20.542	19.112	1.430	7.0
OPEB Obligation	4.833	4.833	0.000	0.0	0.000	0.000	0.000	-	4.833	4.833	0.000	0.0
GASB68 Pension Adjustment**	0.000	0.000	0.000	-	0.000	0.000	0.000	-	0.000	0.000	0.000	-
Environmental Remediation	0.000	0.000	0.000	-	0.000	0.000	0.000	-	0.000	0.000	0.000	-
<b>Total Expenses</b>	<b>\$139.666</b>	<b>\$136.543</b>	<b>\$3.123</b>	<b>2.2</b>	<b>\$22.014</b>	<b>\$13.453</b>	<b>\$8.562</b>	<b>38.9</b>	<b>\$161.680</b>	<b>\$149.996</b>	<b>\$11.685</b>	<b>7.2</b>
<b>Net Surplus/(Deficit)</b>	<b>(\$74.646)</b>	<b>(\$74.808)</b>	<b>(\$0.163)</b>	<b>(0.2)</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>-</b>	<b>(\$74.646)</b>	<b>(\$74.808)</b>	<b>(\$0.163)</b>	<b>(0.2)</b>
<i>Cash Conversion Adjustments:</i>												
Depreciation	20.542	19.112	(1.430)	(7.0)	0.000	0.000	0.000	-	20.542	19.112	(1.430)	(7.0)
Operating/Capital	(17.760)	(0.189)	17.571	98.9	0.000	0.000	0.000	-	(17.760)	(0.189)	17.571	98.9
Other Cash Adjustments	18.756	29.954	11.197	59.7	0.000	0.000	0.000	-	18.756	29.954	11.197	59.7
<b>Total Cash Conversion Adjustments</b>	<b>\$21.539</b>	<b>\$48.876</b>	<b>\$27.337</b>	<b>*</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>-</b>	<b>\$21.539</b>	<b>\$48.876</b>	<b>\$27.337</b>	<b>*</b>
<b>Net Cash Surplus/(Deficit)</b>	<b>(\$53.107)</b>	<b>(\$25.932)</b>	<b>\$27.175</b>	<b>51.2</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>-</b>	<b>(\$53.107)</b>	<b>(\$25.932)</b>	<b>\$27.175</b>	<b>51.2</b>

**Notes:**

-- 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%.

**MTA METRO-NORTH RAILROAD**  
**ACCRUAL STATEMENT OF OPERATIONS BY CATEGORY**  
**EXPLANATION OF VARIANCE BETWEEN ADOPTED BUDGET AND ACTUAL RESULTS**  
**FEBRUARY FINANCIAL PLAN - 2018 ADOPTED BUDGET**  
**JANUARY 2018**  
**(\$ in millions)**

Generic Revenue or Expense Category	Non Reimb. or Reimb.	Current Month vs. Adopted Budget		
		Variance Fav (Unfav)		Reason for Variance
		\$	%	
FAREBOX REVENUE	Non-Reimb	(\$1.031)	(1.8%)	Primarily due to lower New Haven Line commutation and non-commutation ridership.
OTHER OPERATING REVENUE	Non-Reimb	(\$2.255)	(31.6%)	Primarily reflects a reimbursement delay related to the rescheduling of the New York State Grade Crossing Project.
CAPITAL AND OTHER REIMBURSEMENTS	Reimb	(\$8.562)	(38.9%)	Lower reimbursements reflects refinements to project scheduling as well as lower project activity.
PAYROLL	Non-Reimb	(\$0.829)	(1.8%)	Primarily reflects the reallocation of forces to operations coverage due to the rescheduling of capital projects as well as higher than budgeted holiday pay for represented employees.
	Reimb	\$0.344	8.9%	Reflects lower activity in the Positive Train Control Project.
OVERTIME	Non-Reimb	(\$0.693)	(8.1%)	See overtime tables.
	Reimb	\$0.112	6.6%	See overtime tables.
HEALTH AND WELFARE	Reimb	\$0.173	13.2%	Reflects lower activity driven by the Harlem & Hudson Line Power Improvements and Positive Train Control Project.
OPEB CURRENT PAYMENT	Non-Reimb	(\$0.124)	(4.5%)	Primarily reflects higher number of retirees than budgeted.
PENSIONS	Reimb	\$0.126	13.5%	Reflects lower activity driven by the Harlem & Hudson Line Power Improvements and Positive Train Control Project.
OTHER FRINGE BENEFITS	Reimb	\$0.073	7.7%	Reflects lower activity driven by the Harlem & Hudson Line Power Improvements.

**MTA METRO-NORTH RAILROAD**  
**ACCRUAL STATEMENT OF OPERATIONS BY CATEGORY**  
**EXPLANATION OF VARIANCE BETWEEN ADOPTED BUDGET AND ACTUAL RESULTS**  
**FEBRUARY FINANCIAL PLAN - 2018 ADOPTED BUDGET**  
**JANUARY 2018**  
**(\$ in millions)**

		Current Month vs. Adopted Budget		
Generic Revenue or Expense Category	Non Reimb. or Reimb.	Variance Fav (Unfav)		Reason for Variance
		\$	%	
REIMBURSABLE OVERHEAD	Non-Reimb	(\$0.442)	(10.5%)	The non-reimbursable and reimbursable variances primarily reflect lower activity driven by the Positive Train Control Project.
	Reimb	\$0.211	5.4%	
ELECTRIC POWER	Non-Reimb	\$0.711	9.7%	Primarily due to lower rates.
FUEL	Non-Reimb	(\$0.242)	(14.0%)	Reflects higher diesel fuel price per gallon.
INSURANCE	Reimb	(\$0.018)	*	Reflects higher activity in the Cyclical Track Program.
CLAIMS	Non-Reimb	\$0.086	93.4%	Lower than budgeted claims expense.
MAINTENANCE AND OTHER OPERATING CONTRACTS	Non-Reimb	\$2.559	26.9%	Primarily reflects lower than budgeted expenses for various maintenance contracts and lower expense for ferry services due to weather.  Reflects lower monthly activity for the Haverstraw Ossining Ferry, Transformer Rehabilitation Project and the Signal Replacement from Greenwich to South Norwalk.
	Reimb	\$0.351	53.5%	
PROFESSIONAL SERVICE CONTRACTS	Non-Reimb	\$2.473	56.0%	Primarily reflects lower than anticipated expenses for engineering and consulting services, ridership analysis, legal fees and medical services as well as lower outside training.  Reflects lower monthly activity for the Positive Train Control Project and the Signal Replacement from Greenwich to South Norwalk.
	Reimb	\$3.732	92.4%	

**MTA METRO-NORTH RAILROAD**  
**ACCRUAL STATEMENT OF OPERATIONS BY CATEGORY**  
**EXPLANATION OF VARIANCE BETWEEN ADOPTED BUDGET AND ACTUAL RESULTS**  
**FEBRUARY FINANCIAL PLAN - 2018 ADOPTED BUDGET**  
**JANUARY 2018**  
**(\$ in millions)**

Generic Revenue or Expense Category	Non Reimb. or Reimb.	Current Month vs. Adopted Budget		
		Variance Fav (Unfav)		Reason for Variance
		\$	%	
MATERIAL AND SUPPLIES	Non-Reimb	(\$2.588)	(50.7%)	Higher expenses for rolling stock parts and supplies for reliability centered maintenance programs, projects and running repairs.
	Reimb	\$3.475	77.1%	Reflects lower activity in the Waterbury Branch Cab Signal, C-30 Track Program, West Hudson Track Improvements, Power Infrastructure Restoration, Turnouts Mainline High Speed and the East End Connector Project.
OTHER BUSINESS EXPENSES	Non-Reimb	\$0.548	21.0%	Reflects lower subsidy payment to NJT for West of Hudson operations and lower expense for travel meetings and conventions and other miscellaneous expenses.
	Reimb	(\$0.017)	(86.8%)	Reflects higher monthly activity in the Undergrade Bridge Rehabilitation Project.
DEPRECIATION	Non-Reimb	\$1.430	7.0%	Reflects lower capitalization of assets than budgeted due to timing differences in project completions and assets reaching beneficial use.
OPERATING CAPITAL	Non-Reimb	\$17.571	98.9%	Primarily due to revised milestone scheduling of the following projects: NYS Grade Crossing Improvements, 525 North Broadway Space Consolidation, Track Geometry Car, GP35 Locomotive Overhaul, Cameras and Audio for Non-M8 Fleet and the Bridge Monitor Installation.

\* Variance exceeds 100%.

**MTA Metro-North Railroad**  
**February Financial Plan - 2018 Adopted Budget**  
**Non-Reimbursable/Reimbursable Overtime**  
(\$ in millions)

	January						Year To Date(January)					
	Adopted Budget		Actual		Var. - Fav/(Unfav)		Adopted Budget		Actual		Var. - Fav/(Unfav)	
	Hours	\$	Hours	\$	Hours	\$	Hours	\$	Hours	\$	Hours	\$
<b>NON-REIMBURSABLE OVERTIME</b>												
<u>Scheduled Service</u> <sup>1</sup>	53,967	\$ 3.607	70,544	\$ 4.153	(16,577)	(\$0.546)	53,967	\$ 3.607	70,544	\$ 4.153	(16,577)	(\$0.546)
					-30.7%	-15.1%					-30.7%	-15.1%
<u>Unscheduled Service</u>	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
<u>Programmatic/Routine Maintenance</u>	37,023	\$ 2.151	46,208	\$ 2.606	(9,185)	(\$0.456)	37,023	\$ 2.151	46,208	\$ 2.606	(9,185)	(\$0.456)
					-24.8%	-21.2%					-24.8%	-21.2%
<u>Unscheduled Maintenance</u>	535	\$ 0.030	0	\$ -	535	\$0.030	535	\$ 0.030	0	\$ -	535	\$0.030
					100.0%	100.0%					100.0%	100.0%
<u>Vacancy/Absentee Coverage</u> <sup>2</sup>	19,832	\$ 1.094	25,266	\$ 1.329	(5,434)	(\$0.235)	19,832	\$ 1.094	25,266	\$ 1.329	(5,434)	(\$0.235)
					-27.4%	-21.5%					-27.4%	-21.5%
<u>Weather Emergencies</u>	27,710	\$ 1.707	35,585	\$ 1.923	(7,876)	(\$0.217)	27,710	\$ 1.707	35,585	\$ 1.923	(7,876)	(\$0.217)
					-28.4%	-12.7%					-28.4%	-12.7%
<u>Safety/Security/Law Enforcement</u> <sup>3</sup>	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
<u>Other</u>	13	\$ 0.000	22	\$ (0.730)	(9)	\$0.731	13	\$ 0.000	22	\$ (0.730)	(9)	\$0.731
Subtotal	139,079	\$ 8.588	177,626	\$ 9.281	(38,547)	(\$0.693)	139,079	\$ 8.588	177,626	\$ 9.281	(38,547)	(\$0.693)
					-27.7%	-8.1%					-27.7%	-8.1%
<b>REIMBURSABLE OVERTIME</b>	27,898	\$ 1.707	0	\$ 1.595	27,898	\$0.112	27,898	\$ 1.707	0	\$ 1.595	27,898	\$0.112
					100.0%	6.6%					100.0%	6.6%
<b>TOTAL OVERTIME</b>	<b>166,977</b>	<b>\$ 10.295</b>	<b>177,626</b>	<b>\$ 10.875</b>	<b>(10,649)</b>	<b>(\$0.581)</b>	<b>166,977</b>	<b>\$ 10.295</b>	<b>177,626</b>	<b>\$ 10.875</b>	<b>(10,649)</b>	<b>(\$0.581)</b>
					<b>-6.4%</b>	<b>-5.6%</b>					<b>-6.4%</b>	<b>-5.6%</b>

NOTE: Percentages are based on each type of Overtime and not on Total Overtime.

\* Exceeds 100%

<sup>1</sup> Includes Service Delay and Tour Length related overtime.

<sup>2</sup> Excludes T&E crew coverage (included in Scheduled Service category).

<sup>3</sup> Not Applicable.

**MTA Metro-North Railroad**  
**February Financial Plan - 2018 Adopted Budget**  
**Non-Reimbursable/Reimbursable Overtime**  
**(\$ in millions)**

	January			Year To Date(January)		
	Var. - Fav./(Unfav)		Explanations	Var. - Fav./(Unfav)		Explanations
	Hours	\$		Hours	\$	
<b>NON-REIMBURSABLE OVERTIME</b>						
<u>Scheduled Service</u> <sup>1</sup>	(16,577)	(\$0.546)	Reflects service coverage versus available staff and train dispatchment needs.	(16,577)	(\$0.546)	Reflects service coverage versus available staff and train dispatchment needs.
	-30.7%	-15.1%		-30.7%	-15.1%	
<u>Unscheduled Service</u>	0	\$ -		0	\$ -	
<u>Programmatic/Routine Maintenance</u>	(9,185)	(\$0.456)	Increased infrastructure and facility maintenance in Maintenance of Way due to very cold weather winter weather.	(9,185)	(\$0.456)	Increased infrastructure and facility maintenance in Maintenance of Way due to very cold weather winter weather.
	-24.8%	-21.2%		-24.8%	-21.2%	
<u>Unscheduled Maintenance</u>	535	\$0.030		535	\$0.030	
	100.0%	100.0%		100.0%	100.0%	
<u>Vacancy/Absentee Coverage</u> <sup>2</sup>	(5,434)	(\$0.235)	Primarily "must fill" positions in Maintenance of Equipment.	(5,434)	(\$0.235)	Primarily "must fill" positions in Maintenance of Equipment.
	-27.4%	-21.5%		-27.4%	-21.5%	
<u>Weather Emergencies</u>	(7,876)	(\$0.217)	Refelects impact of Winter Storm Grayson.	(7,876)	(\$0.217)	Refelects impact of Winter Storm Grayson.
	-28.4%	-12.7%		-28.4%	-12.7%	
<u>Safety/Security/Law Enforcement</u> <sup>3</sup>	0	\$ -		0	\$ -	
<u>Other</u>	(9)	\$0.731	Reflects timing differences related to payroll and calendar cutoff dates.	(9)	\$0.731	Reflects timing differences related to payroll and calendar cutoff dates.
<b>Subtotal</b>	<b>(38,547)</b>	<b>(\$0.693)</b>		<b>(38,547)</b>	<b>(\$0.693)</b>	
	-27.7%	-8.1%		-27.7%	-8.1%	
<b>REIMBURSABLE OVERTIME</b>	27,898	\$0.112	Reflects lower activity in the GCT Turnouts Switch Renewal project.	27,898	\$0.112	Reflects lower activity in the GCT Turnouts Switch Renewal project.
	100.0%	6.6%		100.0%	6.6%	
<b>TOTAL OVERTIME</b>	<b>(10,649)</b>	<b>(\$0.581)</b>		<b>(10,649)</b>	<b>(\$0.581)</b>	

NOTE: Percentages are based on each type of Overtime and not on Total Overtime.

\* Exceeds 100%

<sup>1</sup> Includes Service Delay and Tour Length related overtime.

<sup>2</sup> Excludes T&E crew coverage (included in Scheduled Service category)

<sup>3</sup> Not Applicable



**MTA METRO-NORTH RAILROAD**  
**2018 Overtime Report**  
**Overtime Legend**

**REVISED OVERTIME DECOMPOSITION LEGEND DEFINITIONS**

<b><u>Type</u></b>	<b><u>Definition</u></b>
<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</u> resulting from extraordinary events, 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.
<i>Reimbursable Overtime</i>	Overtime incurred to support projects that are reimbursed from the MTA Capital Program and other funding sources.

**MTA METRO-NORTH RAILROAD**  
**FEBRUARY FINANCIAL PLAN - 2018 ADOPTED BUDGET**  
**CASH RECEIPTS AND EXPENDITURES**  
(\$ in millions)

SCHEDULE III

	January 2018				Year-to-Date			
	Adopted Budget	Actual	Favorable (Unfavorable)		Adopted Budget	Actual	Favorable (Unfavorable)	
			Variance	Percent			Variance	Percent
<b>Receipts</b>								
Farebox Receipts	\$57.062	\$58.994	\$1.932	3.4	\$57.062	\$58.994	\$1.932	3.4
Toll Receipts	0.000	0.000	0.000	-	0.000	0.000	0.000	-
Other Operating Receipts	9.442	6.896	(2.546)	(27.0)	9.442	6.896	(2.546)	(27.0)
<i>Capital &amp; Other Reimbursements:</i>								
MTA	15.176	6.703	(8.473)	(55.8)	15.176	6.703	(8.473)	(55.8)
CDOT	9.894	17.512	7.618	77.0	9.894	17.512	7.618	77.0
Other	0.590	2.292	1.702	*	0.590	2.292	1.702	*
Total Capital and Other Reimbursements	25.660	26.507	0.847	3.3	25.660	26.507	0.847	3.3
<b>Total Receipts</b>	<b>\$92.164</b>	<b>\$92.397</b>	<b>\$0.233</b>	<b>0.3</b>	<b>\$92.164</b>	<b>\$92.397</b>	<b>\$0.233</b>	<b>0.3</b>
<b>Expenditures</b>								
<i>Labor:</i>								
Payroll	\$42.090	\$43.741	(\$1.651)	(3.9)	\$42.090	\$43.741	(\$1.651)	(3.9)
Overtime	8.642	12.019	(3.377)	(39.1)	8.642	12.019	(3.377)	(39.1)
Health and Welfare	11.877	10.931	0.946	8.0	11.877	10.931	0.946	8.0
OPEB Current Payment	2.750	2.945	(0.195)	(7.1)	2.750	2.945	(0.195)	(7.1)
Pensions	10.069	9.846	0.223	2.2	10.069	9.846	0.223	2.2
Other Fringe Benefits	9.492	12.294	(2.802)	(29.5)	9.492	12.294	(2.802)	(29.5)
GASB Account	0.013	0.000	0.013	100.0	0.013	0.000	0.013	100.0
Reimbursable Overhead	0.000	0.000	0.000	-	0.000	0.000	0.000	-
<b>Total Labor</b>	<b>\$84.933</b>	<b>\$91.776</b>	<b>(\$6.843)</b>	<b>(8.1)</b>	<b>\$84.933</b>	<b>\$91.776</b>	<b>(\$6.843)</b>	<b>(8.1)</b>
<i>Non-Labor:</i>								
Electric Power	\$7.489	\$2.928	\$4.561	60.9	\$7.489	\$2.928	\$4.561	60.9
Fuel	1.697	1.659	0.038	2.2	1.697	1.659	0.038	2.2
Insurance	6.406	0.000	6.406	100.0	6.406	0.000	6.406	100.0
Claims	0.092	(0.108)	0.200	*	0.092	(0.108)	0.200	*
Paratransit Service Contracts	0.000	0.000	0.000	-	0.000	0.000	0.000	-
Maintenance and Other Operating Contracts	10.429	7.717	2.712	26.0	10.429	7.717	2.712	26.0
Professional Service Contracts	12.910	1.724	11.186	86.6	12.910	1.724	11.186	86.6
Materials & Supplies	16.078	9.258	6.820	42.4	16.078	9.258	6.820	42.4
Other Business Expenditures	5.238	3.375	1.863	35.6	5.238	3.375	1.863	35.6
<b>Total Non-Labor</b>	<b>\$60.338</b>	<b>\$26.553</b>	<b>\$33.785</b>	<b>56.0</b>	<b>\$60.338</b>	<b>\$26.553</b>	<b>\$33.785</b>	<b>56.0</b>
<i>Other Adjustments:</i>								
Other	0.000	0.000	0.000	-	0.000	0.000	0.000	-
Other Post Employment Benefits	0.000	0.000	0.000	-	0.000	0.000	0.000	-
<b>Total Other Adjustments</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>-</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>-</b>
<b>Total Expenditures</b>	<b>\$145.271</b>	<b>\$118.329</b>	<b>\$26.942</b>	<b>18.5</b>	<b>\$145.271</b>	<b>\$118.329</b>	<b>\$26.942</b>	<b>18.5</b>
<b>Net Cash Deficit ( excludes Opening Cash Balance)</b>	<b>(\$53.107)</b>	<b>(\$25.932)</b>	<b>\$27.175</b>	<b>51.2</b>	<b>(\$53.107)</b>	<b>(\$25.932)</b>	<b>\$27.175</b>	<b>51.2</b>
<b>Subsidies</b>								
MTA	40.928	37.021	(3.907)	(9.5)	40.928	37.021	(3.907)	(9.5)
CDOT	12.178	16.619	4.441	36.5	12.178	16.619	4.441	36.5
<b>Total Subsidies</b>	<b>\$53.107</b>	<b>\$53.640</b>	<b>\$0.533</b>	<b>1.0</b>	<b>\$53.107</b>	<b>\$53.640</b>	<b>\$0.533</b>	<b>1.0</b>
<b>Cash Timing and Availability Adjustment</b>	<b>\$0.000</b>	<b>\$7.883</b>	<b>\$7.883</b>	<b>-</b>	<b>\$0.000</b>	<b>\$7.883</b>	<b>\$7.883</b>	<b>-</b>

-- Results are preliminary and subject to audit review.

-- Differences are due to rounding.

\* Variance exceeds 100%.

**MTA METRO-NORTH RAILROAD  
FEBRUARY FINANCIAL PLAN - 2018 BUDGET  
CASH RECEIPTS AND EXPENDITURES  
EXPLANATION OF VARIANCE BETWEEN BUDGET AND ACTUAL RESULTS  
(\$ in millions)**

Generic Receipt or Expense Category	January Month vs Budget			\$ Detail
	Variance Fav (Unfav)		Reason for Variance	
	\$	%		
FARE REVENUE	1.932	3.4%	Primarily due to passenger revenue for February recognized in January.	
OTHER OPERATING REVENUE	(2.546)	(27.0%)	Primarily reflects a reimbursement delay related to the rescheduling of the New York State Grade Crossing Project.	
CAPITAL AND OTHER REIMBURSEMENTS:				
MTA	(8.473)	(55.8%)	Lower capital related project activity combined with delay in receipts for work performed.	
CDOT	7.618	77.0%	Higher cash receipts relating to 2017 capital related work partially offset by lower capital related project activity in January.	
OTHER	1.702	*	Higher reimbursable related project activity combined with higher cash receipts than budgeted.	
PAYROLL	(1.651)	(3.9%)	Higher expenditures attributed to intercompany payments.	
OVERTIME	(3.377)	(39.1%)	Reflects timing differences related to payroll and calendar cutoff dates, higher than anticipated holiday related overtime, facility maintenance and infrastructure repair work, slightly higher vacation, sick and vacancy coverage requirements as well as the impact of Winter Storm Grayson.	
HEALTH & WELFARE	0.946	8.0%	Timing of Dental/Vision insurance to be paid in March.	
OPEB CURRENT PAYMENT	(0.195)	(7.1%)	Reflects higher than budgeted number of retirees receiving healthcare premiums.	
OTHER FRINGE BENEFITS	(2.802)	(29.5%)	Higher payroll taxes than budgeted partially offset by lower employee claims.	
CONTRIBUTION TO GASB ACCOUNT	0.013	100.0%	No payment made to the GASB 45 OPEB reserve.	
ELECTRIC POWER	4.561	60.9%	Primarily due to the prepayment of January electric power made in December 2017.	

**MTA METRO-NORTH RAILROAD  
FEBRUARY FINANCIAL PLAN - 2018 BUDGET  
CASH RECEIPTS AND EXPENDITURES  
EXPLANATION OF VARIANCE BETWEEN BUDGET AND ACTUAL RESULTS  
(\$ in millions)**

Generic Receipt or Expense Category	January Month vs Budget			\$ Detail
	Variance Fav (Unfav)		Reason for Variance	
	\$	%		
INSURANCE	6.406	100.0%	Reflects no payments made in January for insurance premiums.	
CLAIMS	0.200	*	Reimbursement from FMTAC for processing and handling fees relating to Spuyten Duyvil incident.	
MAINTENANCE & OTHER OPERATING CONTRACTS	2.712	26.0%	Primarily reflects lower than budgeted expenses for various maintenance contracts and real estate management services.	
PROFESSIONAL SERVICE CONTRACTS	11.186	86.6%	Primarily due to revised milestone scheduling of Capital Related Projects (Positive Train Control, 525 North Broadway Space Consolidation, Track Geometry Car and New York State Beacon Line) combined with lower Data Center Charges and MTA Other Professional Services.	
MATERIALS & SUPPLIES	6.820	42.4%	Primarily due to revised milestone scheduling of Capital Related Projects (New York State Grade Crossing Improvement and Waterbury Branch Cab Signaling).	
OTHER BUSINESS EXPENSES	1.863	35.6%	Lower Non-Operating Purchases combined with lower New Jersey Transit Subsidy.	
MTA SUBSIDY RECEIPTS	(3.907)	(9.5%)	Lower net cash deficit combined with higher CDOT Subsidy partially offset by available cash balance.	
CDOT SUBSIDY RECEIPTS	4.441	36.5%	Higher share of prior months deficit than forecasted combined with payment of Administrative Assets.	

\* Variance exceeds 100%

**MTA METRO-NORTH RAILROAD**  
**FEBRUARY FINANCIAL PLAN - 2018 ADOPTED BUDGET**  
**CASH CONVERSION (CASH FLOW ADJUSTMENT)**  
(\$ in millions)

	January 2018				Year-to-Date			
	Adopted Budget	Actual	Favorable (Unfavorable)		Adopted Budget	Actual	Favorable (Unfavorable)	
			Variance	Percent			Variance	Percent
<b>Receipts</b>								
Farebox Revenue	(\$0.814)	\$2.149	\$2.963	*	(\$0.814)	\$2.149	\$2.963	*
Toll Revenue	0.000	0.000	0.000	-	0.000	0.000	0.000	-
Other Operating Revenue	2.297	2.006	(0.291)	(12.7)	2.297	2.006	(0.291)	(12.7)
Capital & Other Reimbursements:								
MTA	3.646	(2.280)	(5.926)	*	3.646	(2.280)	(5.926)	*
CDOT	0.000	13.887	13.887	-	0.000	13.887	13.887	-
Other	0.000	1.448	1.448	-	0.000	1.448	1.448	-
Total Capital and Other Reimbursements	3.646	13.054	9.408	*	3.646	13.054	9.408	*
<b>Total Revenue/Receipts</b>	<b>\$5.130</b>	<b>\$17.209</b>	<b>\$12.080</b>	<b>*</b>	<b>\$5.130</b>	<b>\$17.209</b>	<b>\$12.080</b>	<b>*</b>
<b>Expenditures</b>								
Labor:								
Payroll	\$6.644	\$5.480	(\$1.165)	(17.5)	\$6.644	\$5.480	(\$1.165)	(17.5)
Overtime	1.653	(1.144)	(2.796)	*	1.653	(1.144)	(2.796)	*
Health and Welfare	(0.340)	0.429	0.769	*	(0.340)	0.429	0.769	*
OPEB Current Payment	0.000	(0.071)	0.000	-	0.000	(0.071)	(0.071)	-
Pensions	(0.053)	0.123	0.176	*	(0.053)	0.123	0.176	*
Other Fringe Benefits	2.148	(0.972)	(3.121)	*	2.148	(0.972)	(3.121)	*
GASB Account	(0.013)	0.000	0.013	100.0	(0.013)	0.000	0.013	100.0
Reimbursable Overhead	(0.288)	(0.057)	0.231	80.1	(0.288)	(0.057)	0.231	80.1
<b>Total Labor</b>	<b>\$9.752</b>	<b>\$3.788</b>	<b>(\$5.965)</b>	<b>(61.2)</b>	<b>\$9.752</b>	<b>\$3.788</b>	<b>(\$5.965)</b>	<b>(61.2)</b>
Non-Labor:								
Electric Power	(\$0.158)	\$3.692	\$3.850	*	(\$0.158)	\$3.692	\$3.850	*
Fuel	0.039	0.319	0.280	*	0.039	0.319	0.280	*
Insurance	(4.681)	1.680	6.361	*	(4.681)	1.680	6.361	*
Claims	0.000	0.114	0.114	-	0.000	0.114	0.114	-
Paratransit Service Contracts	0.000	0.000	0.000	-	0.000	0.000	0.000	-
Maintenance and Other Operating Contracts	(0.273)	(0.471)	(0.198)	(72.7)	(0.273)	(0.471)	(0.198)	(72.7)
Professional Service Contracts	(4.575)	0.406	4.981	*	(4.575)	0.406	4.981	*
Materials & Supplies	(6.465)	(0.533)	5.932	91.8	(6.465)	(0.533)	5.932	91.8
Other Business Expenses	(2.606)	(1.273)	1.333	51.1	(2.606)	(1.273)	1.333	51.1
<b>Total Non-Labor</b>	<b>(\$18.719)</b>	<b>\$3.934</b>	<b>\$22.653</b>	<b>*</b>	<b>(\$18.719)</b>	<b>\$3.934</b>	<b>\$22.653</b>	<b>*</b>
Other Adjustments:								
Other	0.000	0.000	0.000	-	0.000	0.000	0.000	-
<b>Total Other Adjustments</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>-</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>-</b>
<b>Total Expenditures Adjustments before Non-Cash Liability Adjs.</b>	<b>(\$8.966)</b>	<b>\$7.721</b>	<b>\$16.688</b>	<b>*</b>	<b>(\$8.966)</b>	<b>\$7.721</b>	<b>\$16.688</b>	<b>*</b>
Depreciation	20.542	19.112	(1.430)	(7.0)	20.542	19.112	(1.430)	(7.0)
OPEB Obligation	4.833	4.833	(0.000)	0.0	4.833	4.833	(0.000)	0.0
GASB68 Pension Adjustment	0.000	0.000	0.000	-	0.000	0.000	0.000	-
Environmental Remediation	0.000	0.000	0.000	-	0.000	0.000	0.000	-
<b>Total Expenditures Adjustments</b>	<b>\$16.409</b>	<b>\$31.667</b>	<b>\$15.258</b>	<b>93.0</b>	<b>\$16.409</b>	<b>\$31.667</b>	<b>\$15.258</b>	<b>93.0</b>
<b>Total Cash Conversion Adjustments</b>	<b>\$21.539</b>	<b>\$48.876</b>	<b>\$27.337</b>	<b>*</b>	<b>\$21.539</b>	<b>\$48.876</b>	<b>\$27.337</b>	<b>*</b>

**Notes:**

-- 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%.

**MTA METRO-NORTH RAILROAD**  
**FEBRUARY FINANCIAL PLAN - 2018 ADOPTED BUDGET**  
**RIDERSHIP/UTILIZATION**  
**JANUARY 2018**  
(in millions)

	MONTH			VARIANCE			
	ADOPTED <sup>(A)</sup> BUDGET	2018	2017 <sup>(B)</sup>	Fav/(Unfav)			
				ADOPTED BUDGET		2017	
	\$			\$	%	\$	%
<b>FAREBOX REVENUE</b>							
Harlem Line - Commutation	9.158	9.321	9.026	0.163	1.8%	0.294	3.3%
Harlem Line - Non-Commutation	7.631	7.425	7.439	(0.207)	-2.7%	(0.015)	-0.2%
<b>TOTAL HARLEM LINE</b>	<b>\$16.790</b>	<b>\$16.745</b>	<b>\$16.465</b>	<b>(\$0.044)</b>	<b>-0.3%</b>	<b>\$0.280</b>	<b>1.7%</b>
Hudson Line - Commutation	5.987	6.083	5.909	0.096	1.6%	0.175	3.0%
Hudson Line - Non-Commutation	5.986	5.890	5.829	(0.096)	-1.6%	0.061	1.0%
<b>TOTAL HUDSON LINE</b>	<b>\$11.974</b>	<b>\$11.973</b>	<b>\$11.738</b>	<b>(\$0.000)</b>	<b>0.0%</b>	<b>\$0.236</b>	<b>2.0%</b>
New Haven Line - Commutation	13.616	13.146	13.063	(0.469)	-3.4%	0.083	0.6%
New Haven Line - Non-Commutation	14.302	13.809	14.122	(0.493)	-3.4%	(0.313)	-2.2%
<b>TOTAL NEW HAVEN LINE</b>	<b>\$27.918</b>	<b>\$26.955</b>	<b>\$27.186</b>	<b>(\$0.962)</b>	<b>-3.4%</b>	<b>(\$0.230)</b>	<b>-0.8%</b>
<b>All Lines - Commutation</b>	<b>28.761</b>	<b>28.550</b>	<b>27.998</b>	<b>(0.211)</b>	<b>-0.7%</b>	<b>0.552</b>	<b>2.0%</b>
<b>All Lines - Non-Commutation</b>	<b>27.920</b>	<b>27.124</b>	<b>27.391</b>	<b>(0.796)</b>	<b>-2.9%</b>	<b>(0.267)</b>	<b>-1.0%</b>
<b>TOTAL EAST OF HUDSON LINES</b>	<b>\$56.681</b>	<b>\$55.674</b>	<b>\$55.389</b>	<b>(\$1.007)</b>	<b>-1.8%</b>	<b>\$0.285</b>	<b>0.5%</b>
West of Hudson <sup>(C)</sup>	<u>\$1.157</u>	<u>\$1.171</u>	<u>\$1.148</u>	<u>0.014</u>	<u>1.2%</u>	<u>0.023</u>	<u>2.0%</u>
<b>TOTAL FAREBOX REVENUE</b>	<b>\$57.838</b>	<b>\$56.845</b>	<b>\$56.537</b>	<b>(\$0.993)</b>	<b>-1.7%</b>	<b>\$0.308</b>	<b>0.5%</b>
<b>RIDERSHIP</b>							
Harlem Line - Commutation	1.401	1.396	1.398	(0.005)	-0.4%	(0.003)	-0.2%
Harlem Line - Non-Commutation	0.864	0.811	0.849	(0.053)	-6.1%	(0.038)	-4.5%
<b>TOTAL HARLEM LINE</b>	<b>2.265</b>	<b>2.207</b>	<b>2.247</b>	<b>(0.058)</b>	<b>-2.6%</b>	<b>(0.041)</b>	<b>-1.8%</b>
Hudson Line - Commutation	0.781	0.776	0.780	(0.005)	-0.6%	(0.004)	-0.5%
Hudson Line - Non-Commutation	0.550	0.521	0.539	(0.029)	-5.3%	(0.019)	-3.4%
<b>TOTAL HUDSON LINE</b>	<b>1.331</b>	<b>1.297</b>	<b>1.320</b>	<b>(0.034)</b>	<b>-2.5%</b>	<b>(0.023)</b>	<b>-1.7%</b>
New Haven Line - Commutation	1.874	1.842	1.876	(0.032)	-1.7%	(0.033)	-1.8%
New Haven Line - Non-Commutation	1.352	1.292	1.338	(0.060)	-4.4%	(0.045)	-3.4%
<b>TOTAL NEW HAVEN LINE</b>	<b>3.226</b>	<b>3.135</b>	<b>3.213</b>	<b>(0.092)</b>	<b>-2.8%</b>	<b>(0.079)</b>	<b>-2.5%</b>
<b>Total Ridership East of Hudson</b>							
<b>All Lines - Commutation</b>	<b>4.056</b>	<b>4.014</b>	<b>4.055</b>	<b>(0.042)</b>	<b>-1.0%</b>	<b>(0.040)</b>	<b>-1.0%</b>
<b>All Lines - Non-Commutation</b>	<b>2.766</b>	<b>2.624</b>	<b>2.726</b>	<b>(0.142)</b>	<b>-5.1%</b>	<b>(0.102)</b>	<b>-3.7%</b>
<b>TOTAL EAST OF HUDSON LINES</b>	<b>6.822</b>	<b>6.638</b>	<b>6.780</b>	<b>(0.183)</b>	<b>-2.7%</b>	<b>(0.142)</b>	<b>-2.1%</b>
West of Hudson <sup>(C)</sup>	<u>0.133</u>	<u>0.126</u>	<u>0.136</u>	<u>(0.007)</u>	<u>-5.1%</u>	<u>(0.009)</u>	<u>-6.9%</u>
<b>TOTAL EAST &amp; WEST OF HUDSON LINES</b>	<b>6.955</b>	<b>6.765</b>	<b>6.916</b>	<b>(0.190)</b>	<b>-2.7%</b>	<b>(0.151)</b>	<b>-2.2%</b>

<sup>(A)</sup> The Budgeted Month-to-Date and Year-to-Date Ridership and Farebox Revenue values have been revised to reflect information received after the submission of the 12-month allocation data published in the 2018 February Financial Plan.

<sup>(B)</sup> 2017 Ridership figures have been restated to simulate the 2018 calendar.

<sup>(C)</sup> West of Hudson current year actuals are preliminary and prior year actuals are stated as received from New Jersey Transit.

**MTA METRO-NORTH RAILROAD**  
**2018 ADOPTED BUDGET VS. ACTUALS**  
**TOTAL FULL-TIME POSITIONS AND FULL-TIME EQUIVALENTS**  
**January 31, 2018**

<b>Department</b>	<b>Adopted Budget</b>	<b>Actual</b>	<b>Favorable (Unfavorable) Variance</b>	<b>Notes</b>
<b>Administration</b>				
President	4	2	2	
Labor Relations	17	17	0	
Safety	56	55	1	
Security	26	22	4	
Office of the Executive VP	10	10	-	
Corporate & Public Affairs	20	19	1	
Customer Service	64	64	(0)	
Legal	18	13	5	A
Claims	13	12	1	
Environmental Compliance & Svce	7	7	0	
Human Resources	53	48	5	A
Training	84	83	1	
Employee Relations & Diversity	6	6	-	
VP Planning	2	2	-	
Operations Planning & Analysis	21	20	1	
Capital Planning & Programming	17	12	5	A
Long Range Planning	8	8	-	
VP Finance & Info Systems	7	4	3	
Controller	83	76	7	A
Budget	23	18	5	A
Procurement & Material Management	37	24	13	A
<b>Total Administration</b>	<b>576</b>	<b>522</b>	<b>54</b>	
<b>Operations</b>				
Operations Administration	74	66	8	A
Transportation	1,629	1,623	5	
Customer Service	281	283	(2)	B
Metro-North West	38	26	12	A
<b>Total Operations</b>	<b>2,021</b>	<b>1,998</b>	<b>23</b>	
<b>Maintenance</b>				
Maintenance of Equipment	1,655	1,666	(12)	B
Maintenance of Way	2,226	2,120	106	A
Procurement & Material Mgmt	126	118	8	
<b>Total Maintenance</b>	<b>4,006</b>	<b>3,904</b>	<b>102</b>	
<b>Engineering/Capital</b>				
Construction Management	42	40	2	
Engineering & Design	78	70	8	A
<b>Total Engineering/Capital</b>	<b>120</b>	<b>110</b>	<b>10</b>	
<b>Total Positions</b>	<b>6,723</b>	<b>6,534</b>	<b>189</b>	
<b>Non-Reimbursable</b>	<b>6,117</b>	<b>5,936</b>	<b>181</b>	
<b>Reimbursable</b>	<b>607</b>	<b>599</b>	<b>8</b>	
<b>Total Full-Time</b>	<b>6,722</b>	<b>6,533</b>	<b>189</b>	
<b>Total Full-Time-Equivalents (of part-time positions)</b>	<b>1</b>	<b>1</b>	<b>-</b>	

**Notes**

(A) Variance reflects delayed and internal hiring of vacant positions.

(B) Variance reflects lower attrition than planned.

**MTA METRO-NORTH RAILROAD**  
**2018 ADOPTED BUDGET VS. ACTUALS**  
**TOTAL FULL-TIME POSITIONS AND FULL-TIME EQUIVALENTS**  
January 31, 2018

FUNCTION/OCCUPATION	Adopted Budget	Actual	Favorable (Unfavorable) Variance
<b>Administration</b>			
Managers/Supervisors	199	181	18
Professional, Technical, Clerical	377	341	36
Operational Hourlies	-	-	-
<b>Total Administration</b>	<b>576</b>	<b>522</b>	<b>54</b>
<b>Operations</b>			
Managers/Supervisors	259	235	24
Professional, Technical, Clerical	183	176	7
Operational Hourlies	1,580	1,588	(7)
<b>Total Operations</b>	<b>2,021</b>	<b>1,998</b>	<b>23</b>
<b>Maintenance</b>			
Managers/Supervisors	606	618	(12)
Professional, Technical, Clerical	539	500	40
Operational Hourlies	2,861	2,787	74
<b>Total Maintenance</b>	<b>4,006</b>	<b>3,904</b>	<b>102</b>
<b>Engineering/Capital</b>			
Managers/Supervisors	48	46	2
Professional, Technical, Clerical	72	64	8
Operational Hourlies	-	-	-
	<b>120</b>	<b>110</b>	<b>10</b>
<b>Public Safety</b>			
Managers/Supervisors	-	-	-
Professional, Technical, Clerical	-	-	-
Operational Hourlies	-	-	-
<b>Total Public Safety</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Total Positions</b>			
Managers/Supervisors	1,111	1,080	31
Professional, Technical, Clerical	1,171	1,080	91
Operational Hourlies	4,441	4,374	67
<b>Total Positions</b>	<b>6,723</b>	<b>6,534</b>	<b>189</b>



**MTA METRO-NORTH RAILROAD  
2018 ADOPTED BUDGET VS. ACTUALS  
January 31, 2018**

<b>Agency-wide (Non-Reimbursable and Reimbursable)</b>	<b>Adopted Budget</b>	<b>Actual</b>	<b>Favorable (Unfavorable) Variance</b>	<b>Explanation of Variances</b>
<i>Functional Classification:</i>				
Operations	2,021	1,998	23	Primarily reflects delayed and internal hiring of vacant positions.
Maintenance	4,006	3,904	102	Reflects delayed and internal hiring of vacant positions partially offset by lower attrition than planned.
Administration	576	522	54	Vacancies reflects delayed and internal hiring of positions primarily in the Procurement, Controllers, Human Resources, Legal, Capital Planning & Programming and Budget departments.
Engineering / Capital	120	110	10	
<b>Total Agency-wide Headcount</b>	<b>6,723</b>	<b>6,534</b>	<b>189</b>	
Non-Reimbursable	6,117	5,936	181	
Reimbursable	607	599	8	

**MTA METRO-NORTH RAILROAD**  
**FEBRUARY FINANCIAL PLAN - 2018 ADOPTED BUDGET**  
**MONTHLY PERFORMANCE INDICATORS <sup>(A)</sup>**  
**JANUARY 2018**

	<b>MONTH</b>			<b>VARIANCE</b>	
	<b>BUD</b>	<b>2018</b>	<b>2017</b>	<b>Fav/(Unfav)</b>	
				<b>BUD</b>	<b>2017</b>
Farebox Operating Ratio					
Standard <sup>(B)</sup>	44.9%	51.9%	54.5%	7.0%	-2.7%
Adjusted <sup>(C)</sup>	52.1%	58.5%	62.4%	6.4%	-4.0%
Cost per Passenger					
Standard <sup>(B)</sup>	\$18.53	\$16.20	\$15.40	\$2.33	(\$0.80)
Adjusted <sup>(C)</sup>	\$18.16	\$15.80	\$15.01	\$2.37	(\$0.79)
Passenger Revenue/Passenger	\$8.32	\$8.40	\$8.40	\$0.08	\$0.01

	<b>YEAR-TO-DATE</b>			<b>VARIANCE</b>	
	<b>BUD</b>	<b>2018</b>	<b>2017</b>	<b>Fav/(Unfav)</b>	
				<b>BUD</b>	<b>2017</b>
Farebox Operating Ratio					
Standard <sup>(B)</sup>	44.9%	51.9%	54.5%	7.0%	-2.7%
Adjusted <sup>(C)</sup>	52.1%	58.5%	62.4%	6.4%	-4.0%
Cost per Passenger					
Standard <sup>(B)</sup>	\$18.53	\$16.20	\$15.40	\$2.33	(\$0.80)
Adjusted <sup>(C)</sup>	\$18.16	\$15.80	\$15.01	\$2.37	(\$0.79)
Passenger Revenue/Passenger	\$8.32	\$8.40	\$8.40	\$0.08	\$0.01

(A) Monthly Performance Indicators include both East and West of Hudson revenue and expenses.

(B) Standard Farebox Operating Ratio and Cost Per Passenger indicators reflect MTA-wide adopted calculations that exclude non-cash liability adjustments: Depreciation, Other Post Employment Benefits, Environmental Remediation (GASB-49), and the NHL share of MTA Police, Business Service Center and IT costs.

(C) Adjusted Fare Operating Ratio and Cost Per Passenger indicators have been adjusted for comparability between Metro-North and the LIRR and are being presented only at the railroad operating committees. These adjustments are not being used MTA-wide. Adjustments have been made to reflect all operating revenues and significant financial impacts that are outside management's control. These adjustments include: Inclusion of Other Operating Revenue, Removal of OPEB retiree expenses, and Inclusion of estimated farebox revenue from an equalization of the Connecticut fare structure.



**Metro-North Railroad**

# **Ridership Report**

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# **MTA METRO-NORTH RAILROAD**

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## **MONTHLY RIDERSHIP REPORT**

**JANUARY 2018**

Operations Planning & Analysis Department  
March, 2018

# JANUARY 2018 RIDERSHIP & REVENUE REPORT

## MTA METRO-NORTH RAILROAD

### EXECUTIVE SUMMARY

#### January Ridership and Revenue (millions)

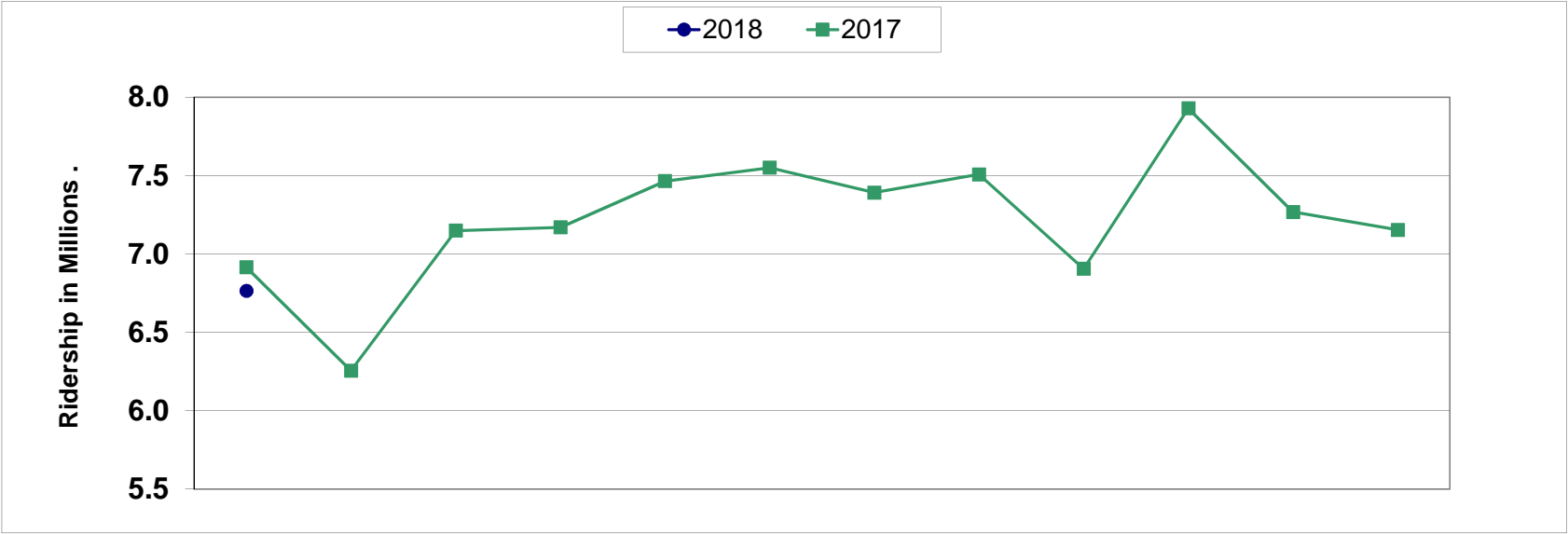
	Jan 2018	% Change vs. 2017
Total Rail Ridership	6.765	-2.2% ▼
Commutation Ridership	4.088	-1.1% ▼
Non-Commutation Ridership	2.677	-3.9% ▼
Connecting Service Ridership	0.046	-9.6% ▼
Total MNR System Ridership	6.811	-2.2% ▼
East of Hudson Ridership	6.639	-2.1% ▼
West of Hudson Ridership	0.126	-6.9% ▼
Rail Revenue	\$56.8	+0.5% ▲

#### Key Factors Impacting January Ridership

- Large decreases in non-commutation ridership can be attributed to the unusually cold weather which occurred during January
  - It was much colder in January 2018 than in January 2017 (average monthly temperature was 31.7 degrees vs. 38.0 degrees last January).
  - On January 4<sup>th</sup> a major snow storm totaling 9.8 inches of snow (NY Central Park) decreased non-commutation ridership by approximately 70,000 fewer rides. Had this storm not occurred total ridership would have decreased by 1.2%

# JANUARY RAIL RIDERSHIP <sup>(1)</sup>

- January's Total Rail Ridership was 2.2% below 2017 and 2.7% below budget.

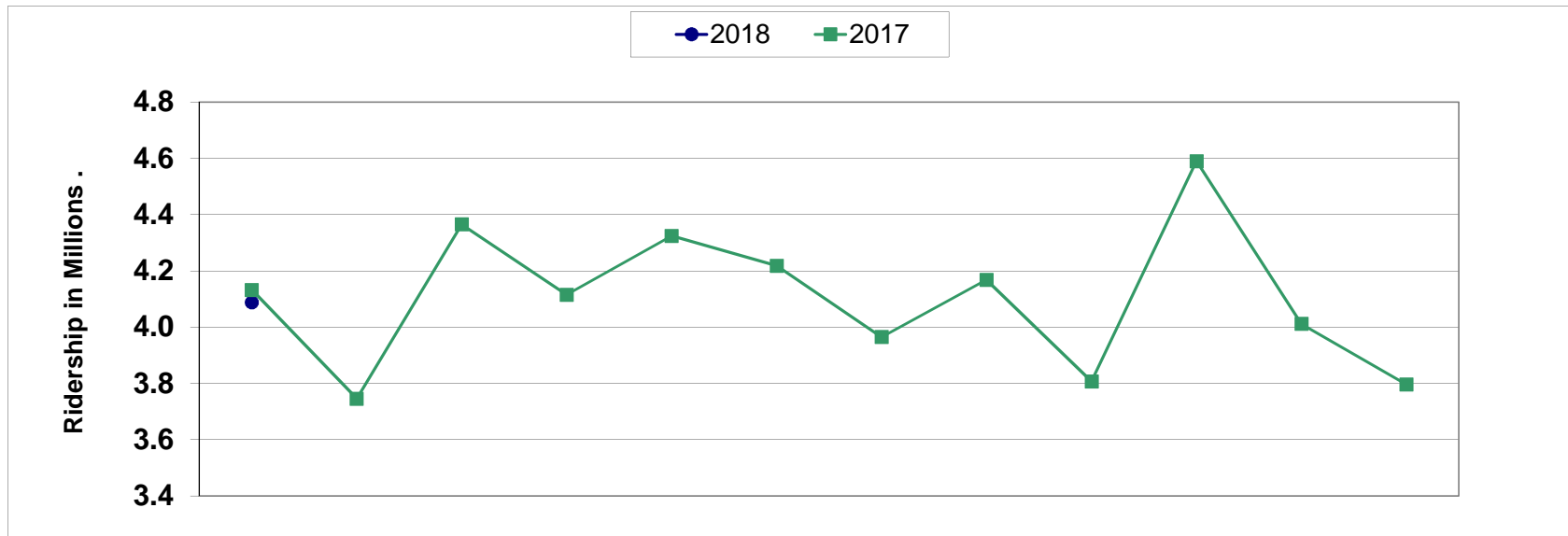


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Y-T-D Total
2018	6.8												6.8
2017	6.9	6.3	7.1	7.2	7.5	7.5	7.4	7.5	6.9	7.9	7.3	7.2	6.9
PCT CHG.	-2.2%												-2.2%

1) Includes East and West of Hudson.

# JANUARY RAIL COMMUTATION RIDERSHIP <sup>(1)</sup>

- January's Rail Commutation Ridership was 1.1% below 2017 and 1.1% below budget.

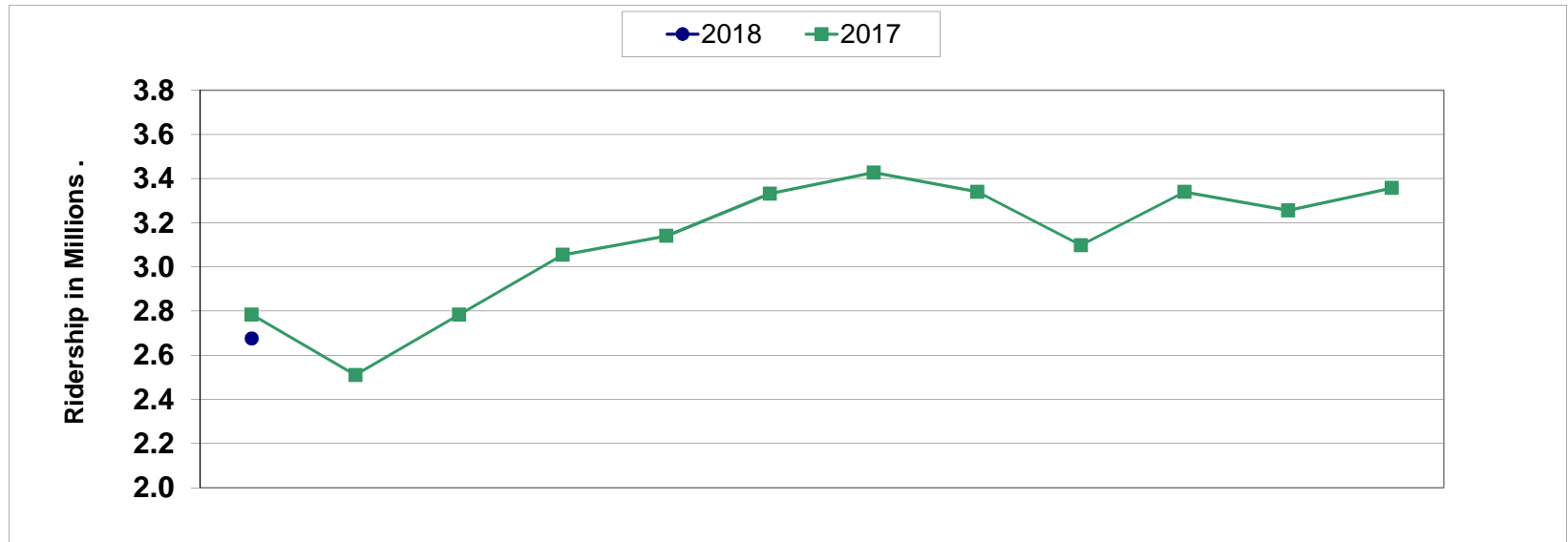


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Y-T-D Total
2018	4.1												4.1
2017	4.1	3.7	4.4	4.1	4.3	4.2	4.0	4.2	3.8	4.6	4.0	3.8	4.1
PCT CHG.	-1.1%												-1.1%

1) Includes East and West of Hudson.

# JANUARY RAIL NON-COMMUTATION RIDERSHIP <sup>(1)</sup>

- January's Rail Non-Commutation Ridership was 3.9% below 2017 and 5.1% below budget.



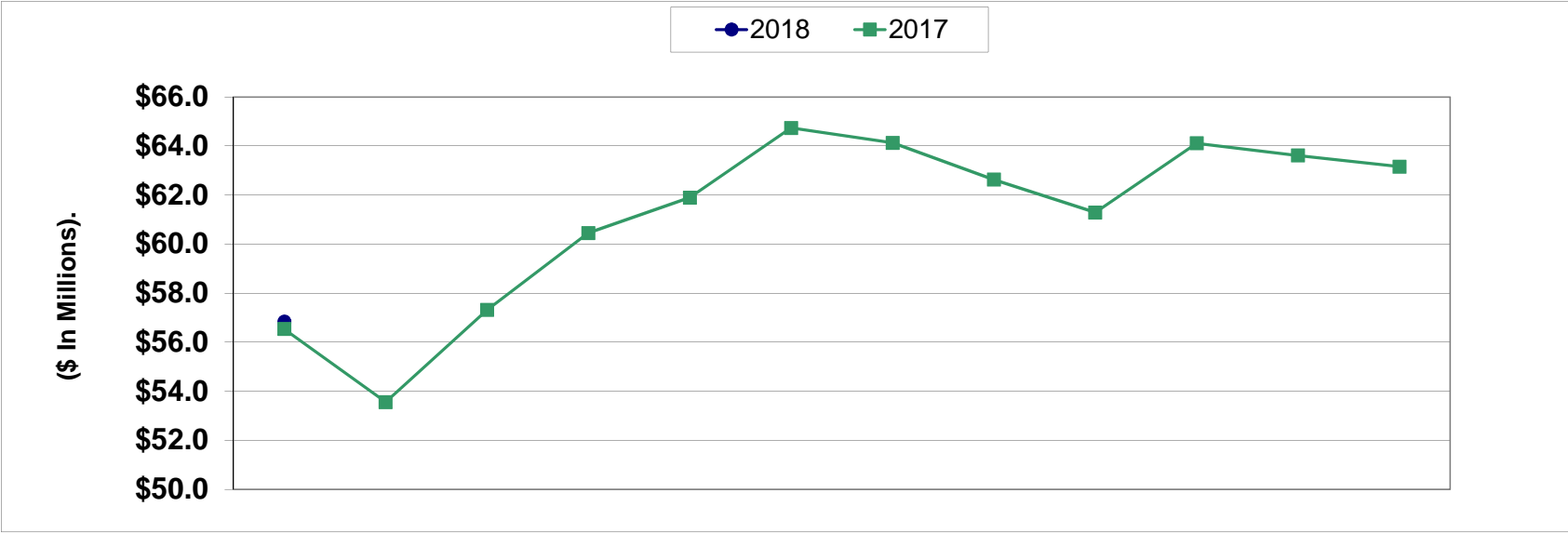
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Y-T-D Total
2018	2.7												2.7
2017	2.8	2.5	2.8	3.1	3.1	3.3	3.4	3.3	3.1	3.3	3.3	3.4	2.8
PCT CHG.	-3.9%												-3.9%

1) Includes East and West of Hudson.



# JANUARY RAIL REVENUE<sup>(1)</sup>

- January's Total Rail Revenue was 0.5% above 2017 and 1.7% below budget.



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Y-T-D Total
2018	\$56.8												\$56.8
2017	\$56.5	\$53.6	\$57.3	\$60.4	\$61.9	\$64.7	\$64.1	\$62.6	\$61.3	\$64.1	\$63.6	\$63.2	\$56.5
PCT CHG.	0.5%												0.5%

1) Includes East and West of Hudson.

# MTA METRO-NORTH RAILROAD RIDERSHIP SUMMARY JANUARY 2018

TICKET TYPE/SERVICE	JANUARY 2018 ACTUAL	JANUARY 2018 BUDGET	VARIANCE VS. BUDGET		JANUARY 2017 RESTATE <sup>(1)</sup>	CHANGE FROM 2017	
			AMOUNT	PERCENT		AMOUNT	PERCENT
<b>RAIL COMMUTATION RIDERSHIP</b>							
East of Hudson	4,014,342	4,055,910	(41,568)	-1.0%	4,054,549	(40,207)	-1.0%
West of Hudson	73,871	77,308	(3,437)	-4.4%	77,157	(3,286)	-4.3%
<b>Total Rail Commutation Ridership</b>	<b>4,088,213</b>	<b>4,133,218</b>	<b>(45,005)</b>	<b>-1.1%</b>	<b>4,131,706</b>	<b>(43,493)</b>	<b>-1.1%</b>
<b>RAIL NON-COMMUTATION RIDERSHIP</b>							
East of Hudson	2,624,073	2,765,796	(141,723)	-5.1%	2,725,915	(101,842)	-3.7%
West of Hudson	52,375	55,763	(3,388)	-6.1%	58,407	(6,032)	-10.3%
<b>Total Rail Non-Commutation Ridership</b>	<b>2,676,448</b>	<b>2,821,559</b>	<b>(145,111)</b>	<b>-5.1%</b>	<b>2,784,322</b>	<b>(107,874)</b>	<b>-3.9%</b>
<b>TOTAL RAIL RIDERSHIP</b>							
East of Hudson	6,638,415	6,821,706	(183,291)	-2.7%	6,780,464	(142,049)	-2.1%
West of Hudson <sup>(2)</sup>	126,246	133,071	(6,825)	-5.1%	135,564	(9,318)	-6.9%
<b>TOTAL RAIL RIDERSHIP</b>	<b>6,764,661</b>	<b>6,954,777</b>	<b>(190,116)</b>	<b>-2.7%</b>	<b>6,916,028</b>	<b>(151,367)</b>	<b>-2.2%</b>
<b>CONNECTING SERVICES RIDERSHIP <sup>(3)(4)</sup></b>	<b>45,903</b>	<b>50,974</b>	<b>(5,071)</b>	<b>-9.9%</b>	<b>50,792</b>	<b>(4,889)</b>	<b>-9.6%</b>
<b>TOTAL MNR SYSTEM RIDERSHIP</b>	<b>6,810,564</b>	<b>7,005,751</b>	<b>(195,187)</b>	<b>-2.8%</b>	<b>6,966,820</b>	<b>(156,256)</b>	<b>-2.2%</b>

Notes:

- 1) 2017 ridership figures have been restated to eliminate calendar impacts on ridership.
- 2) West of Hudson ridership figures are preliminary.
- 3) Includes Hudson Rail Link, Haverstraw-Ossining Ferry and Newburgh-Beacon Ferry.
- 4) Due to icing of the Hudson River in January both Haverstraw-Ossining and Newburgh-Beacon Ferries provided substitute bussing.

# MTA METRO-NORTH RAILROAD RIDERSHIP SUMMARY 2018 YEAR-TO-DATE

TICKET TYPE/SERVICE	2018 YTD ACTUAL	2018 YTD BUDGET	VARIANCE VS. BUDGET		2017 YTD RESTATE <sup>(1)</sup>	CHANGE FROM 2017	
			AMOUNT	PERCENT		AMOUNT	PERCENT
<b>RAIL COMMUTATION RIDERSHIP</b>							
East of Hudson	4,014,342	4,055,910	(41,568)	-1.0%	4,054,549	(40,207)	-1.0%
West of Hudson	73,871	77,308	(3,437)	-4.4%	77,157	(3,286)	-4.3%
<b>Total Rail Commutation Ridership</b>	<b>4,088,213</b>	<b>4,133,218</b>	<b>(45,005)</b>	<b>-1.1%</b>	<b>4,131,706</b>	<b>(43,493)</b>	<b>-1.1%</b>
<b>RAIL NON-COMMUTATION RIDERSHIP</b>							
East of Hudson	2,624,073	2,765,796	(141,723)	-5.1%	2,725,915	(101,842)	-3.7%
West of Hudson	52,375	55,763	(3,388)	-6.1%	58,407	(6,032)	-10.3%
<b>Total Rail Non-Commutation Ridership</b>	<b>2,676,448</b>	<b>2,821,559</b>	<b>(145,111)</b>	<b>-5.1%</b>	<b>2,784,322</b>	<b>(107,874)</b>	<b>-3.9%</b>
<b>TOTAL RAIL RIDERSHIP</b>							
East of Hudson	6,638,415	6,821,706	(183,291)	-2.7%	6,780,464	(142,049)	-2.1%
West of Hudson	126,246	133,071	(6,825)	-5.1%	135,564	(9,318)	-6.9%
<b>TOTAL RAIL RIDERSHIP</b>	<b>6,764,661</b>	<b>6,954,777</b>	<b>(190,116)</b>	<b>-2.7%</b>	<b>6,916,028</b>	<b>(151,367)</b>	<b>-2.2%</b>
<b>CONNECTING SERVICES RIDERSHIP <sup>(2)</sup></b>	<b>45,903</b>	<b>50,974</b>	<b>(5,071)</b>	<b>-9.9%</b>	<b>50,792</b>	<b>(4,889)</b>	<b>-9.6%</b>
<b>TOTAL MNR SYSTEM RIDERSHIP</b>	<b>6,810,564</b>	<b>7,005,751</b>	<b>(195,187)</b>	<b>-2.8%</b>	<b>6,966,820</b>	<b>(156,256)</b>	<b>-2.2%</b>

Notes:

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2 Includes Hudson Rail Link, Haverstraw-Ossining Ferry and Newburgh-Beacon Ferry.

# MTA METRO-NORTH RAILROAD

## RIDERSHIP BY LINE

### JANUARY 2018

LINE	JANUARY 2018 ACTUAL	JANUARY 2017 RESTATED <sup>(1)</sup>	CHANGE FROM 2017	
			AMOUNT	PERCENT
<b>EAST OF HUDSON</b>				
Harlem Line	2,206,702	2,247,320	(40,618)	-1.8%
Hudson Line	1,297,102	1,319,660	(22,558)	-1.7%
New Haven Line	3,134,611	3,213,484	(78,873)	-2.5%
<b>Total East of Hudson</b>	<b>6,638,415</b>	<b>6,780,464</b>	<b>(142,049)</b>	<b>-2.1%</b>
<b>WEST OF HUDSON</b>				
Port Jervis Line	76,573	80,596	(4,023)	-5.0%
Pascack Valley Line	49,673	54,968	(5,295)	-9.6%
<b>Total West of Hudson <sup>(2)</sup></b>	<b>126,246</b>	<b>135,564</b>	<b>(9,318)</b>	<b>-6.9%</b>
<b>TOTAL RAIL RIDERSHIP</b>	<b>6,764,661</b>	<b>6,916,028</b>	<b>(151,367)</b>	<b>-2.2%</b>
<b>CONNECTING SERVICES PROVIDED BY METRO-NORTH CONTRACTORS</b>				
Hudson Rail Link	35,762	35,583	179	0.5%
Haverstraw-Ossining Ferry <sup>(3)</sup>	7,687	10,595	(2,908)	-27.4%
Newburgh-Beacon Ferry <sup>(3)</sup>	2,454	4,614	(2,160)	-46.8%
<b>Total Connecting Services</b>	<b>45,903</b>	<b>50,792</b>	<b>(4,889)</b>	<b>-9.6%</b>
<b>TOTAL MNR SYSTEM</b>	<b>6,810,564</b>	<b>6,966,820</b>	<b>(156,256)</b>	<b>-2.2%</b>

Notes:

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3) Due to icing of the Hudson River in January both Haverstraw-Ossining and Newburgh-Beacon Ferries provided substitute bussing.

# MTA METRO-NORTH RAILROAD

## RIDERSHIP BY LINE

### 2018 YEAR-TO-DATE

TICKET TYPE/SERVICE	2018 YTD ACTUAL	2017 YTD RESTATE <sup>(1)</sup>	CHANGE FROM 2017	
			AMOUNT	PERCENT
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<b>TOTAL MNR SYSTEM</b>	<b>6,810,564</b>	<b>6,966,820</b>	<b>(156,256)</b>	<b>-2.2%</b>

Notes:

1) 2017 ridership figures have been restated to eliminate calendar impacts on ridership.



**Metro-North Railroad**

# **Capital Program Report**

## **CAPITAL PROGRAM**

### **HIGHLIGHTS**

**February 28, 2018**

#### ***ROLLING STOCK***

##### **M-8 Procurement Option**

Metro-North, in partnership with Connecticut Department of Transportation, executed an agreement with the manufacturer in January 2017 to purchase 60 additional M-8 cars for the New Haven Line, with an option for an additional 34 cars. The new cars will begin to arrive in the fourth quarter of 2019. These cars will be fully interoperable and benefit from parts compatibility, reducing operating and future procurement costs with the 405 M-8 cars already purchased.

#### ***GRAND CENTRAL TERMINAL (GCT)***

##### **GCT Utilities (fire suppression system upgrade at lower level of Trainshed and utility tunnels, and replacement of 49<sup>th</sup> St. existing fire pump)**

*Lower Level* – Continued installation of fire hose valve cabinets and heat tracing conduits at various locations across lower level tracks.

*Pipe Tunnel* – Continued insulation of fire stand pipe and jacket insulation along tracks at 43<sup>rd</sup> Street Tunnel and west tunnel. 49<sup>th</sup> Street fire pump control panel installation continues.

*Upper Level* – Continued installation of fire stand pipes and heat tracing conduits at various locations across upper level tracks.

Overall project completion is anticipated in January 2019.

##### **GCT Leaks Remediation Phase II**

Installation of architectural panels and restoration continues at the 45th Street Bridge. Overall project completion is anticipated in May 2018.

##### **Grand Central Terminal (GCT) Public Address (PA) and Visual Information Systems (VIS) Replacements**

The purpose of this project is to replace, update and consolidate the existing Public Address (PA) and Visual Information Systems (VIS) in order to provide improved information to Metro-North customers. The project is divided into three GCT contract packages which are critical to the implementation of the global Customer Service Initiative Project. They include:

- New Public Address and Visual Information Central Control System
- New Cable Plant to Support Audio/Visual & Facility Enhancements
- New Visual Display System Utilizing LED Video Wall Architecture in GCT ("Big Boards & Gate Boards")

Each of the three GCT Customer Service Initiative (CSI) contracts were executed and kicked-off in December 2017. Preliminary quality, safety and baseline schedule submissions are underway. Commenced site surveys for scope clarification and preliminary design development.

## ***STATIONS/PARKING/FACILITIES***

### **Harlem-125th Street Improvements**

- *Replace historic stairways located on the south side of 125th Street (Small Business Mentoring Program Tier II)* – Continued installation of the new steel for the west stair. The replacement of the east stair will commence upon the west stair's completion.
- *Exterior lighting improvements & art work on the viaduct (Small Business Mentoring Program Tier I)* - Completed installation of new exterior station lights. Commenced with removal of the existing lighting on the Park Avenue Viaduct in preparation for a mock-up of the new art work lighting scheduled for April 2018.

### **CSI Outlying Stations Public Announcement/Visual Information and Surveillance/Access Control Systems**

The CSI Project will enhance the customers' experience and improve operations with a system-wide upgrade of the public address, visual information and video surveillance/access control systems at twenty (20) MNR stations and facilities throughout New York. This project also includes upgrades to elevator monitoring, providing network connectivity for new and existing equipment and real-time data improvements. A new PA/VIS system will be deployed with redundant central control systems to ensure a high state of reliability. Each of the three Outlying Stations Customer Service Initiative (CSI) contracts was executed and kicked-off in December 2017. Preliminary quality, safety and baseline schedule submissions are underway. Commenced planning and site surveys for scope clarification, flagger requirements and preliminary design development.

### **Enhanced Station Improvements (ESI) at Harlem-125th Street, Riverdale, Crestwood, White Plains and Port Chester**

The purpose of the Station Enhancement Project is to develop and improve station aesthetics, introduce new technology, and develop sustainability initiatives. A key focus will be to transform and elevate the customer experience at the White Plains station, Metro-North's third busiest station. White Plains Station improvements will include a renovated and expanded waiting room including new bathrooms, upgraded HVAC, Wi-Fi, charging stations, benches,



etc., a new heated side platform, new island platform canopy, and entrance enhancements at the Main St., Hamilton Ave., Mott St. Tunnel and the main entrance. The Crestwood, Port Chester and Riverdale stations will receive a new canopy and waiting plaza and improvements in station overpasses (Riverdale and Crestwood). Harlem-125th Street will receive station house and platform improvements, as well as, an enhanced lighting installation under the viaduct.

A Design-Build contract for the phased implementation of these improvements was executed in December 2017. Site investigation, site survey and mobilization commenced at White Plains. Site investigation commenced at Riverdale. There are various interim milestone completion dates at each station, with overall project completion in December 2020.

## ***POWER***

### **Power, C&S Infrastructure Restoration Phase I & II – Sandy (Design-Build)**

- *Phase I* - Replace and restore to a state of good repair the power and C&S equipment and infrastructure that were destroyed, damaged and/or compromised by Super Storm Sandy on over 16 miles of railroad along the Hudson Line from CP19 (Greystone) to CP35 (Croton-Harmon). Under Track 4 continuous outage from CP25(Tarrytown) to CP19 (Greystone), continued to install: medium voltage signal power precast ductbank and trough, communication and signal (C&S) conduits, 40" trough at interlocking locations, communication and fiber enclosures, sectionalizing switches, reactors, signal power transformers, positive and negative feeder work at different substations and snowmelter conduits. In the out-of-outage work area (outside the track limits for a power outage) continued to install: communication and signal power conduits, laterals for snowmelters and switches, perform test pit excavation work to locate existing underground utility, platform work, trough, and conduits. The following is also underway: continuity jumpers work, performing cable pulls for C&S and sectionalizes switches as well as communication fiber testing.
- *Phase II* - Replace and restore to a state of good repair the power and C&S equipment and infrastructure that were destroyed, damaged and/or compromised by Super Storm Sandy on over 14 miles of railroad along the Hudson Line from CP5 (Bronx) to CP19 (Greystone). Work will include replacement of C&S cable, fiber optic cable, equipment and components, with significant work that is at-grade as well as in and around the track bed adjacent to the Hudson River. Continued utility mark-outs, test pits and borings. 90% design review by key stakeholders continues.

Overall project completion of Phase I and II is anticipated in the first quarter of 2021.

### **Power Infrastructure Restoration – Substations – Sandy**

- *Tarrytown* – Continued field commissioning/testing and training of DC & AC switchgears and Supervisory Control and Data Acquisition system.
- *Croton-Harmon* – Continued with the following work: field commissioning and equipment testing such as electrical switchgear components, power control room wires, snow melter cables, battery system, and louver and fan. Completed installation of vault exhaust fan and vault inspection.
- *Riverdale* – Continued cable pulling work from Con Edison metering box and field commissioning/testing of DC & AC switchgears and Supervisory Control and Data Acquisition system). Crew Quarters work is ongoing, with miscellaneous electrical and finish work.

Completion for the three substations is forecasted for June of 2018. As this project is tied to the Harlem & Hudson Lines Power Improvements (Brewster Substation noted below), the overall project completion is anticipated in the third quarter of 2018.

### **Harlem & Hudson Lines Power Improvements**

- *Construction of 86<sup>th</sup> Street Substation and 110<sup>th</sup> Street Negative Return Reactors*
  - *110th St.* (replacement of negative return reactors in the substation under the viaduct) – Operating as of July 2016.
  - *86th St.* – Demolition and removal of equipment on the east and west platforms continue. Continued with installation of 15KV switchgear building foundation at the west platform. Resumed conduit installation for wheel chex system at west platform. Commenced excavation for new column footings and DC equipment trench at the east platform. Completed installation of Con-Ed low voltage service at east platform. AC and DC Switchgear equipment are currently in storage. Set-up of AC switchgear equipment is planned for the second quarter of 2018 with the DC switchgear equipment to follow in the third quarter of 2018. Overall project completion in early 2019.
- *The Brewster Substation* – Continue installation of 15KV ductbank, fencing at transformer pad, fiberglass floor and channel support brackets for interior access ladder of the power control room, stairs structural steels and treads and terminate control cables for sectionalizing switches. Continued AC/DC switchgear and power control room testing and commissioning. The Brewster Substation is anticipated for completion in the third quarter of 2018.

### **Substation Replacement Bridge - 23**

- *Mount Vernon East* – Fabrication of signal substation is complete. Initial Factory Acceptance Testing (FAT) was conducted in February 2018 with a follow-up scheduled for March 2018. Punch list work for catenary bridge 23X at the site is complete with final testing and commissioning to continue pending further discussion with New York Power Authority (NYPA) on pull box (PB-1) work.
- *Catenary work between Mount Vernon and New Rochelle* – Catenary system overhead wire FT-3 and FT-4 installation is complete. Further testing and commissioning to continue pending installation of pull box (PB-1) referenced above.
- *New Rochelle* – Controls and relay work to commence in second quarter 2018 with connecting the overhead wires FT-3 and FT-4 to the New Rochelle substation.

Overall project completion is anticipated in fourth quarter of 2018.

## ***TRACK AND STRUCTURES***

### **Inspection and Load Rating of Select Undergrade Bridges in New York State**

The field inspection phase of the bridges continues and is near completion. Associated Inspection and Load Rating reports continue to be submitted and reviewed by key stakeholders.

Project completion is anticipated in March 2019.

### **Design-Build of Prospect Hill Road Bridge (Southeast Station)**

The design portion of the contract continues with various design packages under review by key stakeholders. The structural steel fabrication for the deck girders commenced and is scheduled for completion in April 2018. The bridge superstructure and substructure demolition has been completed. Installed west abutment and center pier piles and commenced with installation of east abutment piles, which is scheduled for completion in March 2018. Prospect Hill Road Bridge is anticipated to open for vehicular traffic by year end 2018.

### **Overhead Bridge Program – Select Bridges East of Hudson**

14<sup>th</sup> Avenue Bridge, Mt. Vernon, NY (Design-Build contract) - Various design packages are under review by key stakeholders. Utility relocation work has been completed. Mobilization at the site has commenced and installation of foundation post, conduits and junction boxes / pull boxes for relocation of the signal cable is scheduled for completion in March 2018. The bridge will be closed to commence replacement in April 2018 until the work is complete, which is scheduled for February 2019.

### **Harlem River Lift-Bridge Security Upgrades**

Construction submittal phase is underway. Site construction has commenced, Bronx shed foundation is complete, and a chain link fence installed on both sides of the bridge.

### **Harlem River Lift-Bridge Power Cable Tie**

The Harlem River Lift Bridge Electronic Power Cable Tie contract was awarded in December 2017. The contract is to furnish and install a new Bronx-Manhattan power cable tie system to provide back-up power between the two sides of the Harlem River Lift Bridge. The new power cable shall be installed in the existing duck bank / manhole system of the existing micro tunnel that spans across the Harlem River. Construction submittal phase is underway. Site construction is scheduled to commence in March 2018.

## ***COMMUNICATIONS AND SIGNAL***

### **Positive Train Control (PTC)**

Subsystem designs being finalized. On-Board and office software is in development. Factory Acceptance Testing (FAT) for sub-system level software for On-Board and Office continues. Surveys and Federal Communications Commission (FCC) / Tribal applications continue for communication site locations, with 98% of all sites approved by the FCC. Transponders continue to be installed, programmed and tested for Civil Speed Enforcement (CSE). CSE is available on all lines for use by Amtrak, freight and MNR M8 train revenue service. Installation and testing of PTC transponders are complete for Pilot 2 (Hudson Line CP 25 to 35) and is ongoing for Pilot 1 (New Haven Line CP 255 to CP 274). Wayside subsystem deliveries and installations continue on all lines. All M7A on-board PTC equipment installation has been completed. M3A on-board PTC hardware installations are ongoing. Third party contract work for communications infrastructure installation is ongoing. Training of employees continues. Interoperability discussions with Amtrak and Freight carriers continue. The project is on schedule to meet the FRA requirements of December 31, 2018.

### **West of Hudson Signal Improvements**

The purpose of this project is to install a new 100 Hz Cab Signal system replacing the existing antiquated system on the Port Jervis Line between Suffern, NY (MP 31.3) and Sparrowbush, NY (MP 89.9), with the work divided into five segments. MNR forces are continuing to work on installations in preparation for a series of cut overs. The first signal cut over took place in April 2017 from CP-Sterling to Suffern. The second cut over from CP-Sterling to CP-Harriman is scheduled for March 2018.

## ***SHOPS AND YARDS***

### **Harmon Shop Improvements**

#### *Phase V, Stage I Design-Build*

- *Consist Shop Facility/Building 6 (CSF)* –Continued interior Mechanical, Electrical & Plumbing related installation including duct work, plumbing, fire suppression, insulation, electrical conduit rough-in, equipment/panel boards, interior partitions, doors & windows, kitchen cabinet installation, resilient floor and ceramic tile, lockers & benches, car top wiring for passenger & freight elevators and installation of Vertical Lift Module) and other industrial equipment.
- *EMU (Electric Multiple Unit) Annex Building* – Continued interior installation such as: masonry walls, interior duct work, plumbing, fire suppression, seismic control for gas line, electrical conduit rough-in, men's room lockers & benches installation, equipment/panel boards, bridge and gantt cranes & workstations, metal stairs, installation of elevator machine rooms, wiring of switchgear and panels inside the electrical room and other industrial equipment installation. Completed priming and painting at the EMU entrance foyer.
- *Yard Utilities and Miscellaneous* – Continued installation of underground utilities at CSF and EMU Annex.

Overall, Phase V, Stage 1 construction completion is anticipated in June 2018.

#### *Phase V, Stage II Preliminary Design*

Procurement process is underway with design-build proposals received and under review, on schedule to award in July 2018.

# 2018 MNR Capital Program Goals

As of February 28, 2018

In Millions

