



Metropolitan Transportation Authority

Capital Program Oversight Committee Meeting

February 2015

Committee Members

T. Prendergast, Chair

F. Ferrer

A. Albert

R. Bickford

A. Cappelli

S. Metzger

J. Molloy

M. Pally

A. Saul

J. Sedore

V. Tessitore

I. Weinshall

C. Wortendyke

Capital Program Oversight Committee Meeting

2 Broadway, 20th Floor Board Room

New York, NY 10004

Monday, 2/23/2015

1:15 - 2:15 PM ET

1. PUBLIC COMMENTS PERIOD

2. APPROVAL OF MINUTES - JANUARY 20, 2015

- *Minutes from January 2015 - Page 3*

3. COMMITTEE WORK PLAN

- *2015-2016 CPOC Work Plan - Page 6*

4. LIRR /MNR QUARTERLY UPDATE ON POSITIVE TRAIN CONTROL

- *LIRR and MNR Quarterly Update on Positive Train Control - Page 8*

- *Appendix – Risk Assessment - Page 14*

- *IEC Positive Train Control Project Review - Page 17*

5. MNR 2014 CAPITAL PROGRAM REVIEW

- *MNR 2014 Capital Program Review - Page 21*

- *IEC Hudson Line Sandy Restoration Project Review - Page 44*

- *IEC Harmon Consist Shop Replacement, Phase V, Stage 1 Project Review - Page 48*

6. LIRR CAPITAL PROGRAM OVERVIEW

- *LIRR Capital Program Overview - Page 53*

- *IEC Jamaica Capacity Improvements Project Review - Page 70*

- *IEC Mainline Double Track Project Review - Page 73*

7. Capital Program Status

- *Commitments, Completions and Funding Reports - Page 78*

Date of next meeting: Monday, March 23, 2015 at 1:45 PM

MINUTES OF MEETING
MTA CAPITAL PROGRAM OVERSIGHT COMMITTEE
January 20, 2015
New York, New York
1:45 P.M.

MTA CPOC members present:

Hon. Thomas Prendergast, Chairman
Hon. Fernando Ferrer
Hon. Andrew Albert
Hon. Robert Bickford
Hon. Susan Metzger
Hon. John Molloy
Hon. Mitchell Pally
Hon. James Sedore
Hon. Carl Wortendyke

MTA CPOC members not present:

Hon. Alan Cappelli
Hon. Andrew Saul
Hon. Vincent Tessitore
Hon. Iris Weinshall

MTA staff present:

Michael DeVitto
Michael Garner
Gwen Harleston
Craig Stewart
Michael Wetherell

LIRR staff present:

Mark Young

MNR staff present:

Delana Glenn

NYCT staff present:

John O'Grady
Steve Plochochi
Fred Smith

Independent Engineering Consultant staff present:

Chris Adams
Mohammad Mohammadinia

* * *

Chairman Prendergast called the January 20, 2015 meeting of the Capital Program Oversight Committee to order at 1:45 P.M.

Public Comments Period

There were no public speakers in the public comments portion of the meeting.

Meeting Minutes

Upon motion duly made and seconded, the CPOC members approved the minutes to the previous meeting held on December 15, 2014.

Committee Work Plan

Mr. Stewart reported that there were no changes to the CPOC Work Plan.

New York City Transit Capital Program Update

Mr. Smith provided an overview of the NYCT 2014 Capital Program, including commitment and completion results, as well as a review of the sharp growth of the Program since 2010. Mr. O'Grady then updated the committee on the NYCT Sandy Recovery and Resiliency Program, which comprises tunnels, yards, terminals and shops, as well as the South Ferry Station Complex. In its Project Review on the South Ferry Station Complex, the IEC reported that it is in general agreement with the agency's presentation, and confirmed that according to the results of the August 2014 Risk Assessment on this project, the appropriate cost and schedule contingencies were incorporated in the project budget and schedule. Further details of the presentations, and Committee Members' comments and questions with respect thereto are included in the video recording of the meeting maintained in MTA's records.

NYCT, LIRR and MNR Update on New Fare Payment System

Mr. DeVitto provided an update on the NYCT New Fare Payment System, including current roll-out schedule and investment levels proposed in the 2015-2019 Capital Program, as well as an update on the MTA Interoperability effort to develop a strategy and roadmap for regional integration. Mr. Young and Ms. Glenn then provided updates on the LIRR and MNR on-board and mobile ticketing initiatives, as well as the Commuter Railroads' long-term strategy study. In its Project Review of the NYCT program, the IEC noted that extending the program schedule is well advised, given that the RFP, review, award, design and testing phase is now more in line with previous similar deployments. The IEC then noted that the current estimated program budget of \$450 million may not be adequate when full program costs have been finalized. The IEC then offered the following recommendations: CPM should finalize and submit a firm budget for the provision of access nodes in the subway fare collection areas; an independent review of CPM's estimate for the installation of these nodes should be carried out. Further details of the presentation, and Committee Members' comments and questions with respect thereto are included in the video recording of the meeting maintained in MTA's records.

Update on Minority, Women and Disadvantaged Business Participation Programs

Following an introduction by Mr. Garner, in which he announced an upcoming graduation ceremony for those contractors who have successfully completed the Tier I Small Business Mentoring Program, Ms. Harleston provided a year-end update on the MWDBE Participation Rates. In the January – December 2014 timeframe, the MTA achieved a 20% participation rate against its 17% Federal Goal, and exceeded its 10% MBE and 10% WBE goals by achieving 11% in each category. In addition, Mr. Plochochi provided a brief report on NYCT's Hurricane Sandy-related project awards with respect to the MWDBE contracting community. Further details of the presentation, and Committee Members' comments and questions with respect thereto are included in the video recording of the meeting maintained in MTA's records.

MTA Capital Program Commitments and Completions

Mr. Stewart reported that in 2014 the MTA planned 55 major commitments and \$6.5 billion in total capital commitments. By year end, 39 of the major commitments and \$5.8 billion (88%) of the overall goal for 2014 were committed. In addition, in 2014 the MTA planned 46 major completions

and \$5.7 billion in total capital completions, and by year end, 28 of the major completions and \$4.5B (78%) of the overall goal were achieved.

Adjournment

Upon motion duly made and seconded, Chairman Prendergast adjourned the January 20, 2015 meeting of the MTA Capital Program Oversight Committee at 2:45 P.M.

Respectfully submitted,
Michael Jew-Geralds
Office of Construction Oversight



2015-2016 CPOC Committee Work Plan

I. Recurring Agenda Items

Approval of the Minutes
Committee Work Plan
Commitments/Completions and Funding Report

II. Specific Agenda Items

March 2015

Quarterly MTACC Capital Program Update

- Cortlandt Street Station
- East Side Access
- No. 7-Line Extension
- Second Avenue Subway

Update on Capital Program Security Projects (in Exec Session)

Quarterly Change Order Report

Quarterly Traffic Light Report

April 2015

NYCT Capital Program Update

- Signals and Train Control Division
 - CBTC Flushing Line
 - CBTC Queens Boulevard Line
 - Culver Line CBTC Integrated Test Facility
 - Signals Dyre Ave. Line
- Systems and Security Division
 - ISIM-B
 - VHF Radio
 - Bus Command Center and Bus Radio System
- Update on Track Program

May 2015

B&T Capital Program Update

- Bronx-Whitestone Bridge
- Hugh L. Carey Tunnel
- Queens Midtown Tunnel
- RFK Bridge
- Verrazano-Narrows Bridge

Quarterly LIRR and MNR Positive Train Control (PTC) Update

June 2015

Quarterly MTACC Capital Program Update

Quarterly Change Order Report

Quarterly Traffic Light Report

July 2015

NYCT Capital Program Update
NYCT, LIRR, MNR Update on New Fare Payment System
Quarterly LIRR and MNR Positive Train Control (PTC) Update
Update on Minority, Women and Disadvantaged Business Participation
Update on Small Business Development Programs

September 2015

Quarterly MTACC Capital Program Update
Update on Capital Program Security Projects (in Exec Session)
Quarterly Change Order Report
Quarterly Traffic Light Report

October 2015

NYCT Capital Program Update

November 2015

LIRR and MNR Capital Programs Update

- Quarterly Positive Train Control (PTC) Update

December 2015

Quarterly MTACC Capital Program Update
Quarterly Change Order Report
Quarterly Traffic Light Report

January 2016

NYCT Capital Program Update
NYCT, LIRR, MNR Update on New Fare Payment System
Update on Minority, Women and Disadvantaged Business Participation

February 2016

Quarterly LIRR and MNR Positive Train Control (PTC) Update

February 2015 CPOC LIRR/MNR PTC Project Update



February 2015 CPOC LIRR/MNR PTC Project Update

- **PTC Project Description**

- PTC, which will comply with the Rail Safety Improvement Act of 2008, will prevent train-to-train collisions, overspeed derailments, incursions into established work zone limits, and the movement of a train through an improperly aligned switch.

- **Progress since December 2014 CPOC Update**

- DOT and the FRA progressing the last stages of review with regards to MTA's \$967M RRIF Loan application. The major outstanding issue is FRA's Buy-America requirements. MTA is finalizing the loan with a target date of on or before by April 30, 2015.
- Transponder bracket First Article Inspection (FAI) completed and initial delivery received and installed in the infrastructure in January 2015.
- PTC Systems Integrator provided substantial Preliminary Design Review (PDR) documentation. Although the finalization of PDRs are about three months behind schedule; they are not holding up Pilot Testing or the Implementation Plan.
- PTC Radio currently being tested at an Independent Test Lab: on target for February 28, 2015, completion.

- **90 Day Look Ahead**

- MNR to further progress installation of transponder brackets and transponders on the New Haven Line
- Begin Final Design Reviews (FDR) – March 2015: one month delay from the December 2014 CPOC report
- Completion of Radio Frequency Propagation Analysis for Pilot – February 2015
- Continue to work with the FCC on spectrum needs in four MNR counties



February 2015 CPOC LIRR/MNR PTC Project Update

- **Risk Assessment**

- Risk Assessment completed in December 2014
- Risk Results based on 80% confidence level
- The Risk Informed project duration (with mitigation) adds up to 6 months to the December 2018 Full Implementation Date.
 - Wayside Segments will be installed on a prioritization basis developed primarily from a Hazard Assessment pursuant to FRA regulations.
 - The LIRR/MNR schedules (on page 3) show significant Implementation by December 2017.
- The estimated Project Cost at 80% confidence level (includes risks mitigated, where practical) is assessed at \$973.3M
 - The Railroads' current estimated Project Cost is \$967.9M. This amount, which includes contingency, is \$5.4M less than the \$973.3M Risk Informed Cost Estimate.
- The Development nature of the project creates unusual risks that are difficult to quantify.
- Exclusions from Risk Assessment
 - Spectrum Acquisition
 - Funding
 - FRA Penalties



**LIRR PTC Implementation Schedule**

	LIRR							
	Wayside Miles				On-Board Units ^{4,5}			
	Original	%	New	%	Original	%	New	%
Dec 2015	63	20%	63	20%	41	7.8%	61	11.7%
Dec 2016	172	54.7%	256	81.5%	223	42%	380	73%
Dec 2017	251	79.6%	314 ¹	100%	393	75.5%	499 ³	96%
Dec 2018	318	N/A	318 ²	N/A	520	100%	520	100%

¹ 314 Miles completed by August 2017 vs. Oct 2018 under the original schedule.

² 4 remaining miles for ESA only.

³ 478 Units installed by May 2017 (includes all M7's).

⁴ M9's are PTC ready upon delivery and not included in table.

⁵ LIRR M3's are not planned to be PTC equipped due to decommissioning beginning late 2017/early 2018.

MNR PTC Implementation Schedule

	MNR							
	Wayside Miles				On-Board Units ^{a,b}			
	Original	%	New	%	Original	%	New	%
Dec 2015	52	19.2%	52	19.2%	86	25%	92	26.8%
Dec 2016	95	35.1%	155	57.4%	172	50.1%	258	75.2%
Dec 2017	171	63.3%	270	100%	258	75.2%	343	100%
Dec 2018	270	100%	N/A	N/A	343	100%	N/A	N/A

a. MNR M8s are not included in the count.

b. PTC will be installed on the Port Jervis Line under an option on a New Jersey Transit contract.

PTC Prototype/Mockup Installations



PTC Prototype/Mockup Installations

Antenna Scanner



M7 Undercarriage

Antenna Array/220Mhz



M7 Roof Top (Top view)



**MTA Agencies: LIRR/MNR****Project Name: PTC (Contracts 1712 (LIRR) and 29544 (MNR))****Project Description**

The objective of this project is the planning, design and implementation of a Positive Train Control (PTC) system on all main-line tracks to comply with the Rail Safety Improvement Act of 2008. The PTC System will be designed to prevent train-to-train collisions, overspeed derailments, incursions into established work zone limits, and the movement of a train through an improperly aligned switch. The project has three phases:

- The completed Planning Phase included the FRA approved Implementation Plan and Development Plan.
- The Design Phase includes development of Design Criteria (Conceptual Design), Preliminary Design and Final Design for Wayside, Onboard, Radio Communications, Back Office and System integration, as well as preliminary installation of wayside and onboard equipment for Pilot Testing.
- The Implementation Phase includes the development, manufacture and furnishing of PTC equipment by the System Integrator, as well as installation by the Railroads.

PTC Implementation Schedule

- Extensive PTC System Development and Pilot Testing resulted in the Delivery Schedules in the original Contracts supporting a December 2018 date for Full Implementation notwithstanding the statutory December 2015 Implementation Date.
- In April 2014, the Board authorized 3 Change Orders to improve the Delivery Schedules of On-Board/Wayside Kits allowing installation and earlier utilization of PTC on more track segments by a greater number of trains. The Improved Schedules show well over 90% of the project will be complete by December 2017.

PTC Cost

- Total LIRR/MNR estimated Project costs with Contingency are \$967.9M(\$443.8M and \$524.1M, which includes \$157M from the State of Connecticut), respectively.

**Risk Assessment Schedule and Cost Impacts**

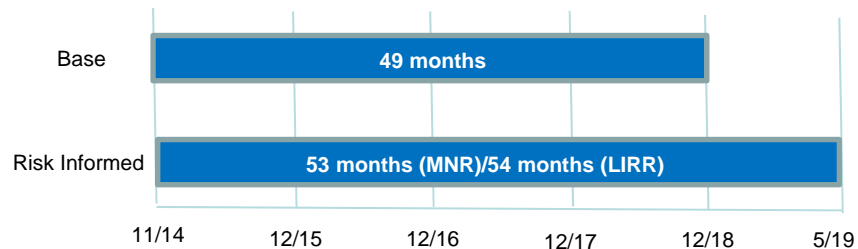
A Risk Assessment was conducted in the 4th quarter of 2014 based on 80% confidence level and utilizing mitigation measures, the Risk Assessment resulted in the following:

- Completion date (Dec 2018) may be extended, by up to six months to the respective LIRR/MNR project baseline schedules for Full Implementation.
- The \$967.9M estimated project cost may be increased by \$5.4M (from \$443.8M to \$449.2M) for LIRR with MNR remaining at \$524.1M.

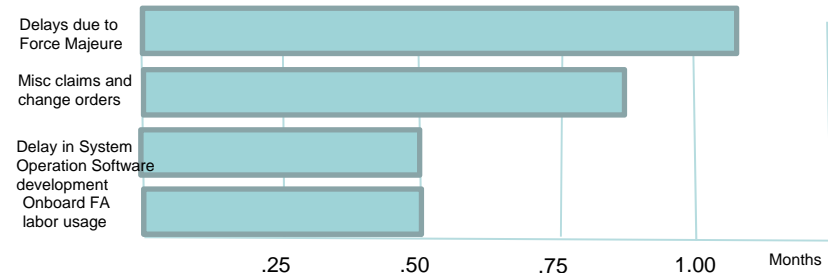
Mitigation Measures

- LIRR/MNR are working with the System Integrator to mitigate risks to stay within the current budget and schedule.
- Appendix A lists significant Mitigation Measures previously implemented.

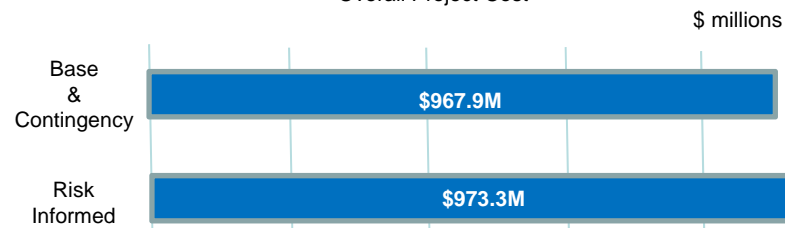
Overall Project Schedule



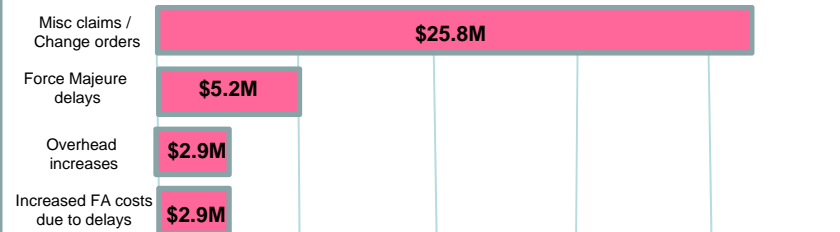
Top Schedule Risk Factors Impacting Contract Duration



Overall Project Cost



Top Cost Risk Factors Impacting Total Project Construction Cost for Risk Assessment



**APPENDIX A****LIRR/MNR Major Risks Mitigated**

- LIRR's Ronkonkoma to Greenport and MNR's Waterbury Branch (Dark Territory) exception for full PTC implementation received from FRA
- Market risk alleviated by award of Systems Integrator Contract at a reasonable price
- MNR pre-wired communications cabinet included in Systems Integrator contract alleviating integration risk
- Replacement of poor performing Communications and EMI/EMC subcontractors/suppliers mitigating the then expected delays in these areas
- Obtained spectrum supporting all LIRR territory and parts of MNR territory, also received temporary licenses from the FCC supporting MNR in areas where Pilot testing will be conducted

February 2015 CPOC IEC Project Review



Positive Train Control



February 23, 2015

Project Status Review

- **BUDGET** – There have been no cost issues affecting the project estimate since last reported in December 2014.
- **SCHEDULE** – There is no change in the overall project schedule since the December 2014 report. The Pilot Tests remain on schedule to start in 2015.



Project Status Review

Remarks

- The railroads have correctly stated progress since December 2014.
- Some design elements have slipped against planned target dates. Both Contractor and Railroads have stepped up efforts to finalize design. The start date for Pilot testing hasn't been affected.
- The IEC's previous concern that the developmental risks with adapting the ACSES II system could impact the overall schedule has been reduced based on progress. A large portion of the functional requirements for operations are defined and are in design.



Risk Assessment

Risk Assessment: The IEC facilitated the RA workshop in December 2014 that included personnel from both Railroads and an independent subject matter expert. The workshop was built on earlier cost and schedule information of the project which was updated at the RA to the current status (roughly 20% complete level).

Results: The Railroads' presentation accurately reflects the range of schedule completion dates and costs. The resulting 80% confidence level (costs & schedule) is in line with current agency projections. Risks have been identified and prioritized in order of importance along with strategies to mitigate them. Risks excluded from the RA are logically omitted.



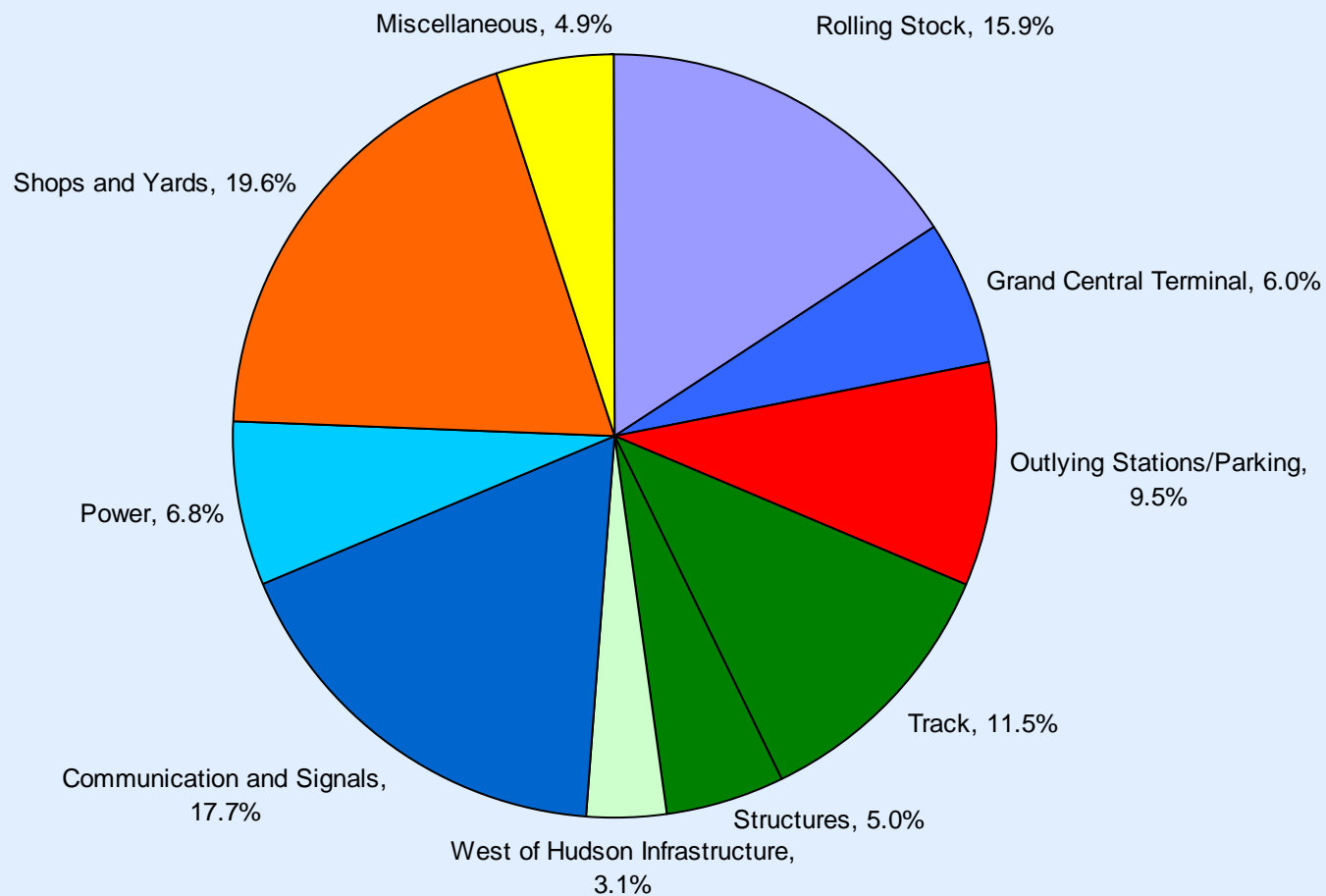
MNR 2014 Capital Program Review

Timothy McCarthy
Vice President
Capital Programs

February 2015



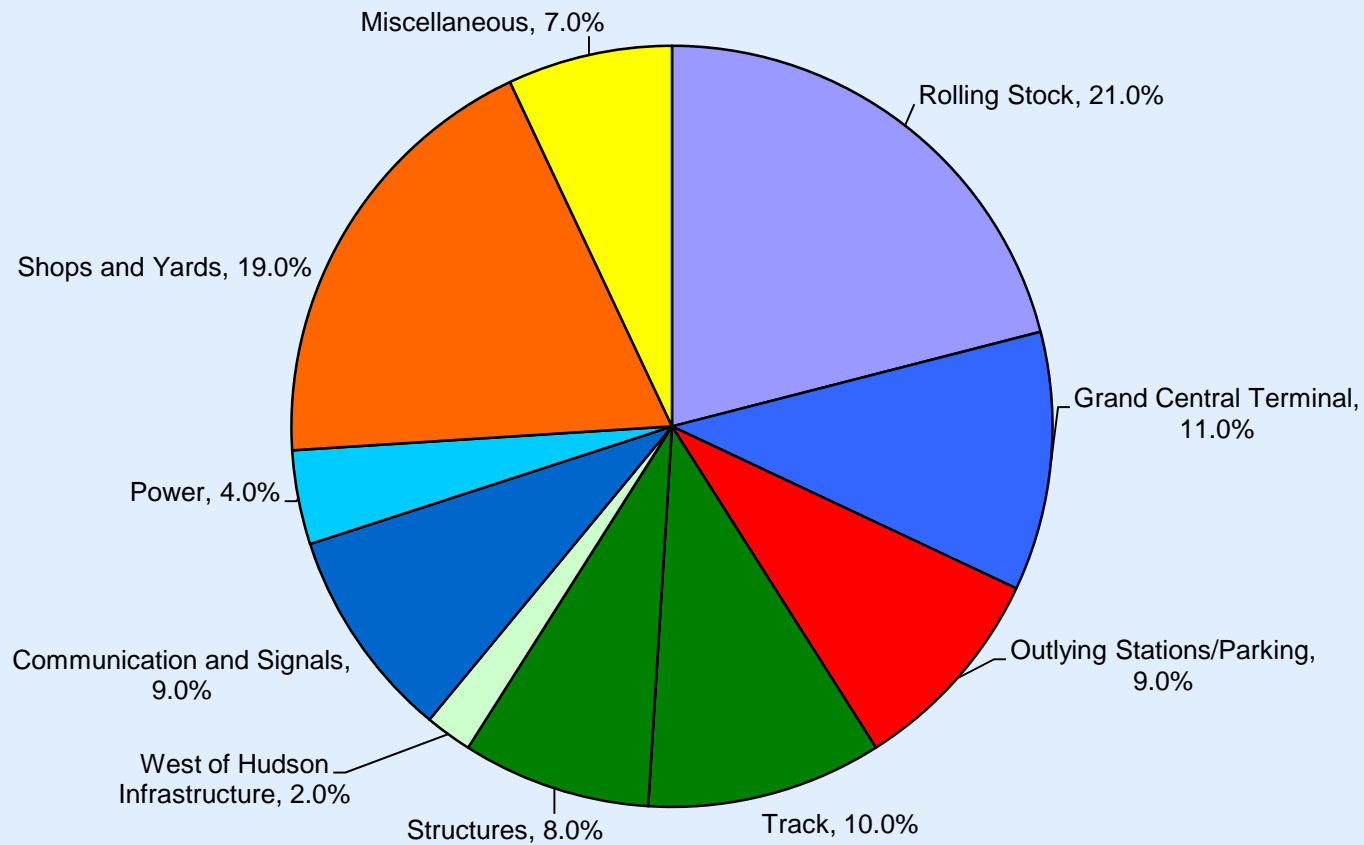
2010 – 2014 Capital Program = \$1.5B



MTA Metro-North Railroad



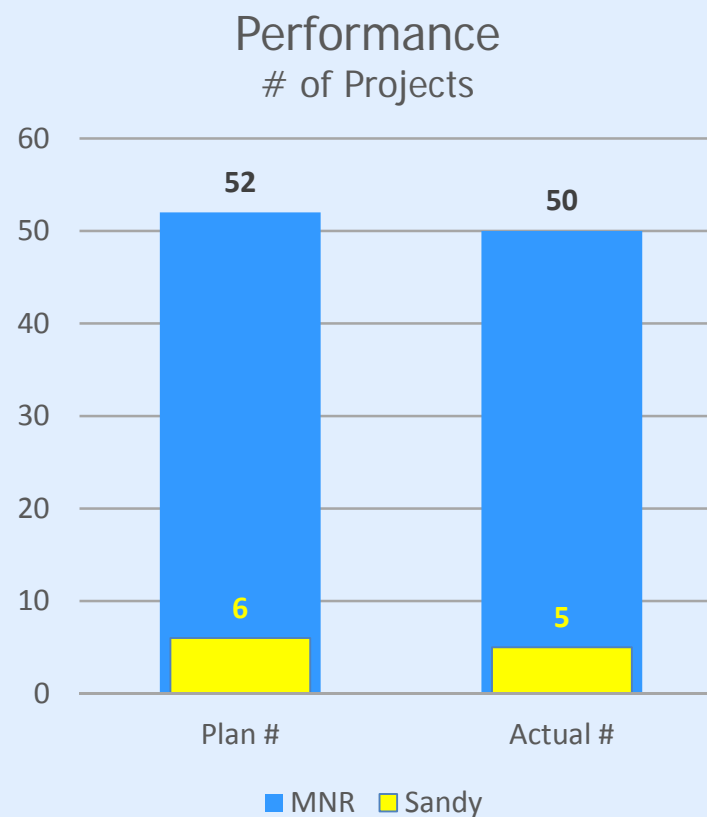
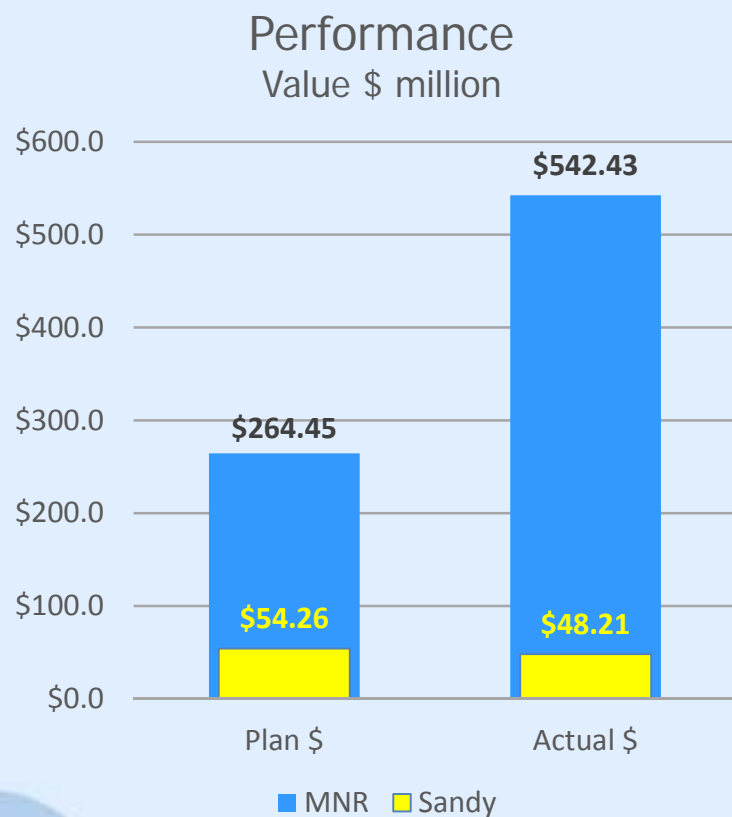
Proposed 2015 – 2019 Capital Program = \$2.5B



MTA Metro-North Railroad



2014 Commitment Performance

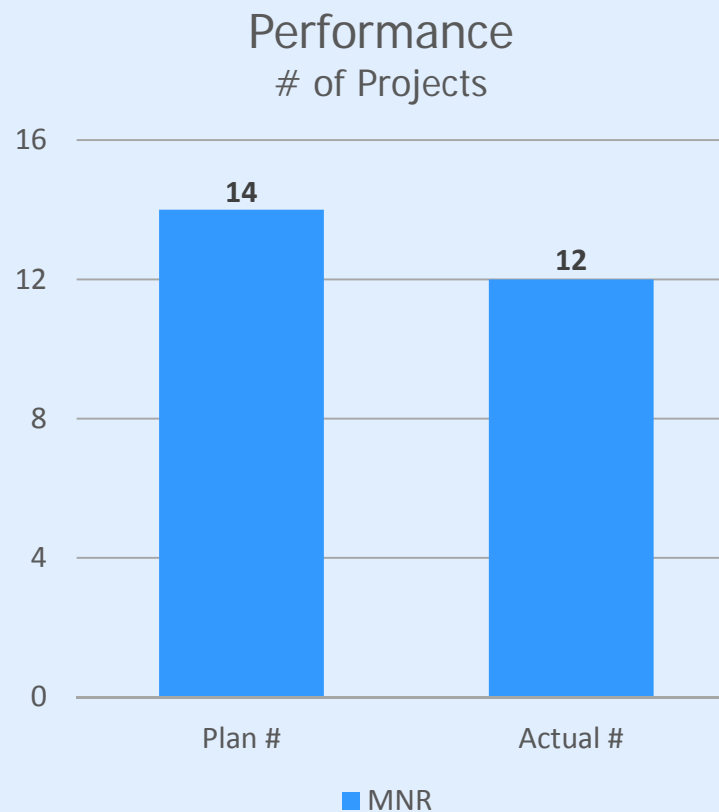
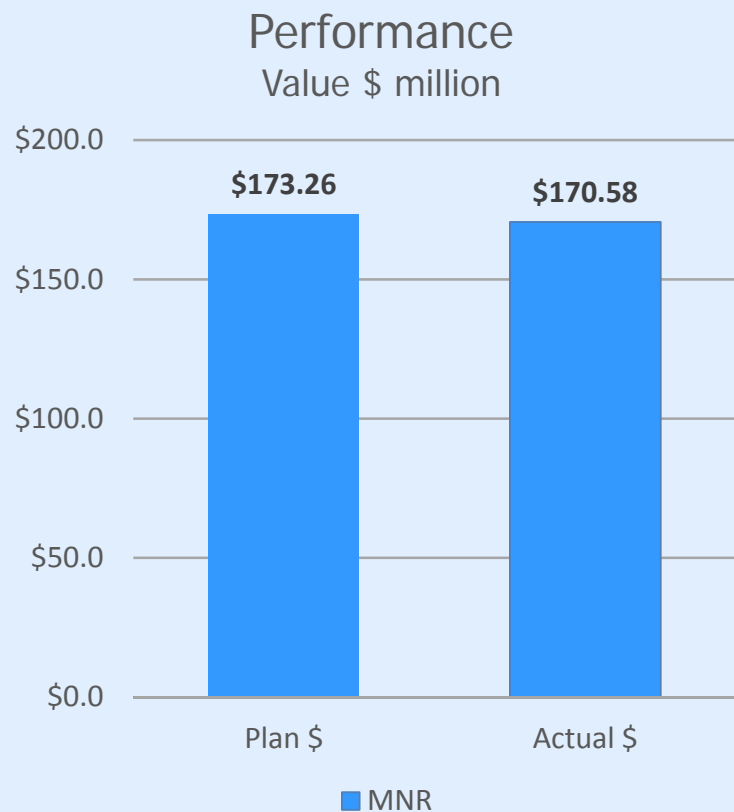


Major 2014 Commitments

Project	
➤ Power Infrastructure Restoration – 4 Substations	\$45.90m
➤ Harmon Shop Improvements	\$293.17m
➤ GCT Train Shed/Tunnel Structure Rehabilitation	\$14.12m
➤ 2014 Cyclical Track Program	\$1.22m
➤ Construction of 86 th Street Substation/110 th Street Reactor	\$12.61m
➤ Turnouts – Mainline/High Speed	\$19.19m



2014 Completions Performance



Major 2014 Completions

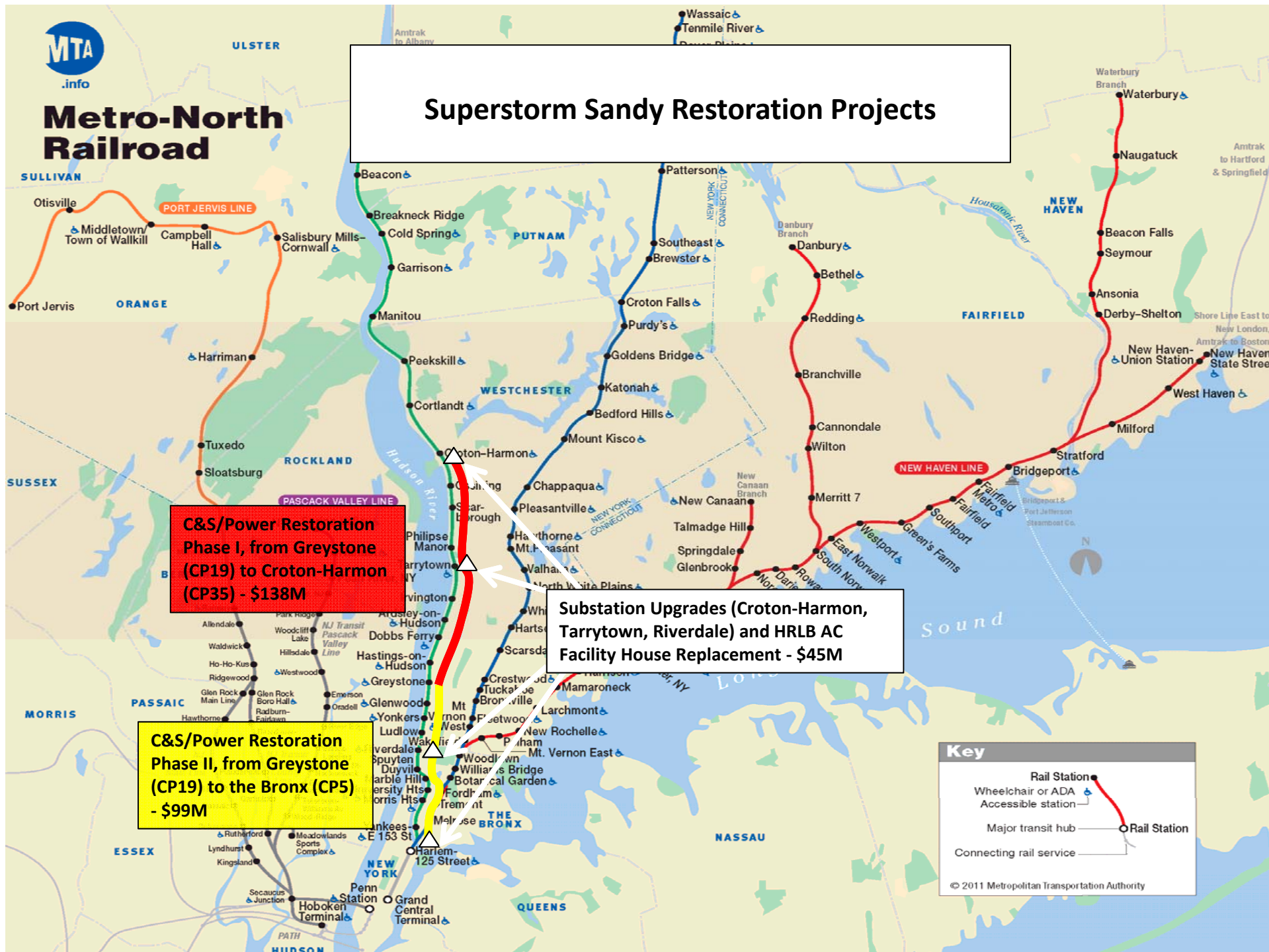
Project	
➤ M8 Cars; 86 Cars Acceptance	\$75.68m
➤ New Haven Line Station Improvements	\$36.25m
➤ Moodna/Woodbury Viaducts Rehabilitation	\$9.00m
➤ Park Avenue Tunnel Renewal	\$8.09m
➤ Customer & Employee Communications	\$7.96m
➤ GCT Turnout/Switch Renewal	\$14.88m
➤ Harlem & Hudson Substations Renewal	\$8.00m



Major Project

Superstorm Sandy Restoration





30 Mile Hudson Line Power and C&S Infrastructure Restoration (Phase I + Phase II): \$237 M



30+ Miles Damaged Cables/Splices

Damage

- Power components damaged and failed or with useful life reduced due to salt water intrusion
- C&S cable plant compromised

Scope

- Replace 30+ miles flooded and damaged railroad infrastructure from the Bronx to Croton-Harmon (Phases 1 and 2)
 - 30 miles of communications and signal cable plant
 - Traction power cables and components

Status

- In Procurement Phase
- Design completed: 9/2014
- Risk Assessment conducted 10/15/14 and 10/16/14
- Award Design-Build contract (Phase 1) 5/2015; duration 24 months
- An option for the Phase II is anticipated to be awarded in 5/2017, with a duration of 24 months
- MTA/FTA budget process ongoing

Sandy Hudson Line Restoration: Replace 3 Hudson Line Substations and Harlem River Lift Bridge AC Facility House(s): \$45 M



Damaged Substations



Substation Replacement - Elevated (Tarrytown rendering)

Damage

- Traction power substations flooded
- Temporary repairs complete; latent impacts from brackish water continue

Scope

- Replace 3 DC traction power substations: Riverdale (A-13), Tarrytown (A-25) and Croton-Harmon (A-33), and Hardening of (2) AC facility Substations at the Harlem River Lift Bridge
- Elevate substations to ABFE + 4

Status

- Design completed: 7/2014
- DC substation award: 12/2014; duration is 24 months
- Kickoff meeting for the DC substations: 2/5/15
- AC Facility Houses Hardening: ongoing, with completion anticipated in Q3 2015

Major Project

Harmon Shop Replacement



Harmon Shop Replacement History

Harmon S&Y Investment by Capital Program:

2000-04: \$106.7M

2005-09: \$353.0M

2010-14: \$315.6M

Total: **\$775.3M**

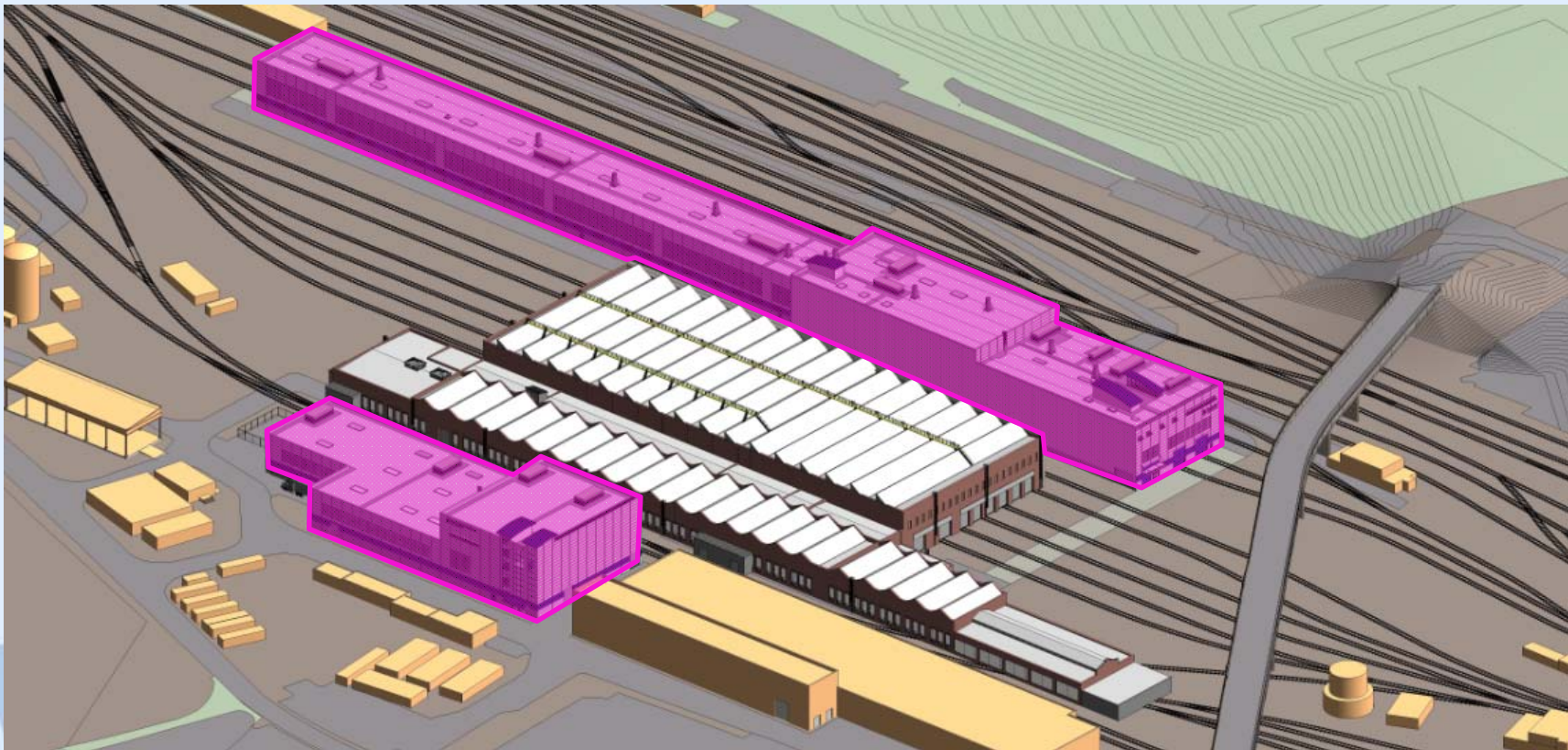


	Construction	3 rd Party Contract Value (Contractor)	Work Scope
Phase I	2001-03	\$31,108,642 (ECCO)	Improvements to the 20s Yard Construction of New Employee Overpass Rehabilitation of Building #13 – HM Tower
Phase II	2003-06	\$32,301,500 (Railroad Construction Company)	Construction of Building #32 – Communications Construction of Building #33 – MoW Storage Facility Modifications to Building #14 – Material Distribution Center
Phase III	2006-09	\$281,917,043 (Skanska-ECCO JV)	Construction of Building #3 – Locomotive Shop Construction of Building #4 – Coach Shop Construction of Building #20 – Wheel True Facility
Phase IV	2011-13	\$10,762,121 (ECCO)	Priority repairs on Building #6 – Main Shop Construction of Wheel Storage Facility
Phase V	2014-18	\$245,013,556 (Skanska-ECCO JV) + Stage II Costs	Construction of Consist Shop Facility and EMU Annex Construction of EMU Running Repair and Support Shops

Project Overview

This program is in the fifth phase which will fully replace Main Shop (Building #6).

- Operational Limitations split Phase V into two stages
 - Stage 1: Design and Construction of Consist Shop and Electric Multiple Unit (EMU) Annex
 - Stage 2: Design and Construction of Running Repair and EMU shops



Metro-North Railroad

Project Budget and Schedule

Current Budget	
Design-Build Contract (Skanska-ECCO JV)	\$245,013,556
Consultant Construction Management (AECOM)	\$10,700,000
Total Project (includes force account/other 3rd Party)	\$315,590,606

Current Schedule		
Milestone	Award	Complete
Preliminary Design Phase V, Stage I	12/21/12	6/1/14
Preliminary Design Phase V, Stage II	11/1/14	5/1/16
Design-Build Phase V, Stage I	12/30/14	12/31/17
• Final Design	1/1/15	12/1/15
• Construction	4/1/15	12/31/17



Major Project

Cyclical Track Program



2010-2014 Cyclical Track Program (East of Hudson¹)

Budget: \$64.2 million

Year	Continuous Welded Rail (miles)	Ties (each)	Surfacing (miles)	% Complete	Total (\$million)
2010	1.0	22,208	78	100	\$13.0
2011	1.8	22,520	83	100	\$12.4
2012	2.0	26,435	82	100	\$12.6
2013 ²	1.5	16,310	18	70	\$12.7
2014	1.5	20,908	69	100	\$13.5
	7.8	108,381	330		\$64.2

¹ "East of Hudson" includes New Haven Line in New York State only.

² 2013 Program was rescheduled due to obligating capital forces in support of other priority work.



2010 – 2014 West of Hudson

Budget: \$19.4 million

YEAR	TIES	SURFACING (Miles)	Switches	% Complete
2010	16,318	29.6	1	100
2011 ¹	N/A	N/A	N/A	-
2012 Spring ²	12,922	22	-	100
2012 Fall ²	13,000	23	2	100
2013 ³	20,552	33	2	100
2014 ³	-	-	-	-
Totals	62,792	107.6	5	



¹ Hurricane Irene hit August 2011. No programmed work done.

² 2011 program work done in Spring 2012. 2012 program work done in Fall 2012.

³ 2013 and 2014 program work done in Fall 2013.

Proposed 2015 – 2019 Cyclical Track Program (East of Hudson): \$106.9M

Continuous Welded Rail:

25 Track miles

Ties:

116,300 Ties

Surfacing:

600 Track miles

Mainline Switches:

68 Regular Switches

2 Double Slip Switches

Grand Central Terminal Switches:

27 Regular Switches

8 Double Slip Switches

5 Diamond Crossings



Proposed 2015 – 2019 Cyclical Track Program (West of Hudson): \$10.0M

Continuous Welded Rail:

5 Track miles

Ties:

45,000 Ties

Surfacing:

80 Track miles

Mainline Switches:

8 Regular Switches

Program will resume in 2015
on two year cycles



2015-2019 Goals

- Modify Track Programs to address Actual Condition instead of historic cyclical averages
- Actual conditions determined from Visual Inspections and Machine Inspections
- Introduce handheld devices for field inspections
- Correct historic drainage conditions and difficult tie and surfacing locations
- Move from reactive to proactive maintenance
- Upgrade interlocking conditions



Sperry Rail Service - SRS

Equipment



Production Tamper



Rail Vac



Continuous Welded Platform - CWP



Track Loading Vehicle - TLV

Future Plans

- ❖ New Geometry Car
- ❖ Autonomous Track Geometry
- ❖ Interim Asset Management System – Future EAM
- ❖ New equipment:
 - ❖ Continuous Work Platform
 - ❖ Vac Trucks
 - ❖ Snow Throwers
- ❖ Addition of mini tie gang and drainage gang
- ❖ **All are recommendations from TTCI Reports and the Blue Ribbon Panel.**



February 2015 CPOC IEC Project Review



Hudson Line Sandy Restoration

February 23, 2015



Schedule & Budget Review

Hudson Line Sandy Restoration

- **Schedule:** The project's procurement phase was extended to allow design/build teams additional time to prepare their proposals. As a result of this and other factors, contract award is now forecast for May 2015.
- **Budget:** Based on the latest estimate, MNR is forecasting the need for additional funding.



Risk Assessment

Risk Assessment: A Risk Assessment (RA) Workshop was held on October 15 & 16, 2014.

- At the time of the RA the project was at 30% Design.
- MNR, OCO and the IEC were active participants in developing the risk logs including estimated cost, schedule impacts and mitigation strategies.
- The IEC is satisfied that the RA included accurate baseline cost & schedule information, and a thorough accounting of the project risks and opportunities.
- The results of the RA will be presented at a future CPOC meeting.



IEC Findings

- **Project RisksRisk Assessment Update**
 - MNR Strategy:
 - MNR is using the design/build project delivery method which transfers much of the post-award risk to the contractor and encourages the contractor to develop the most efficient means and methods.
 - IEC Review:
 - **Risk:** The IEC is in agreement with MNR's strategy.



February 2015 CPOC IEC Project Review



**Harmon Consist Shop Replacement
Phase V, Stage 1**

February 23, 2015



Schedule & Budget Review

Harmon Consist Shop Replacement Phase V-Stage 1

- **Schedule:** The design/build contract for Stage 1 and for the additional Stage 2 work was awarded in December 2014. The contract is scheduled to be completed in December 2017.
- **Budget:** The budget was increased by approximately \$30M to cover the cost of the Stage 2 work that was advanced into Stage 1. The negotiated design/build costs were below the engineer's estimate.



Risk Assessment Update

September 2013 Workshop:

- **Risk Assessment Update**
 - **Schedule Risk:** The design/build contractor accepted the project schedule which includes the additional 4 months added to the overall schedule (36 months total).
 - **Cost Risk:** The Risk Assessment results indicated a potential budget underrun. The underrun was used to advance some Stage 2 work.



Risk Assessment Update

- **Risk:** Testing and Commissioning
 - Identified as a potential significant schedule risk.
 - As a mitigation to this risk, the IEC recommended MNR ensure the Design/Builder has an experienced commissioning agent on their team.
 - The Design/Builder has included a commissioning team. In addition, the Consultant Construction Manager has an independent commissioning agent as part of their team.



IEC Recommendation

- Recommendation
 - The IEC recommends conducting a one-day risk update workshop which includes the additional work from Stage 2, and the information from the accepted design/build proposal.



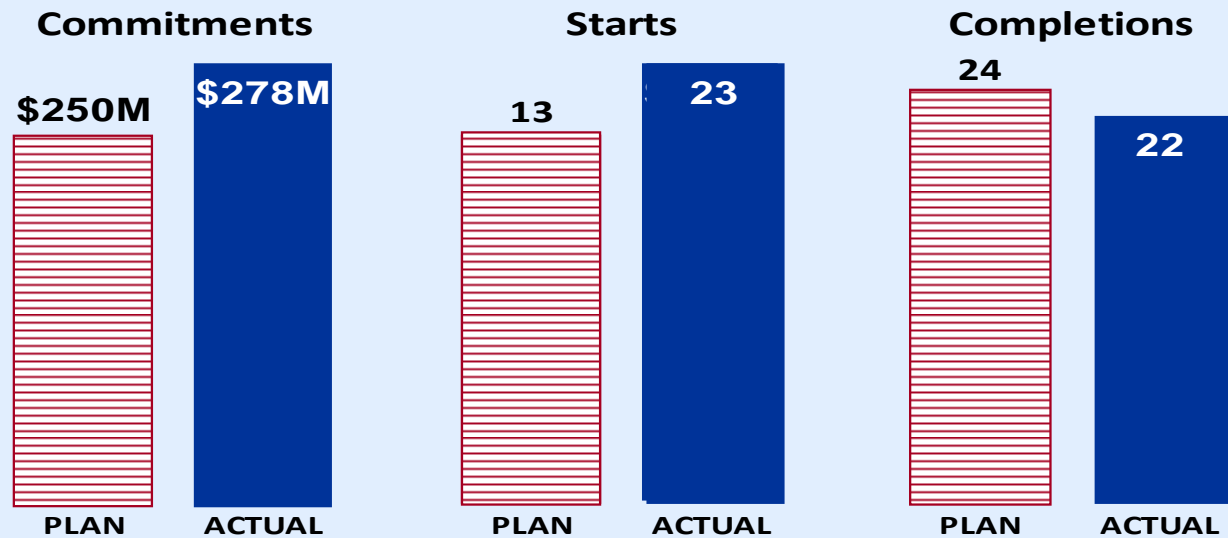
Capital Program Oversight Committee

Long Island Rail Road Capital Program Overview

February 23, 2015



2014 LIRR Goals and Achievements



Major 2014 Commitments

<input type="checkbox"/> Design-Build - Johnson Ave. Yard Reconfiguration - Jamaica Capacity Improvements	\$46.6M
<input type="checkbox"/> Design-Build - Colonial Road Improvements – Bridge and Pocket Track	\$26.1M
<input type="checkbox"/> Design-Build - Replacement of Ellison Avenue Bridge	\$7.07M
<input type="checkbox"/> Replacement of Atlantic Tunnel Block Ties	\$15.78M
<input type="checkbox"/> 2014 Annual Track Programs	\$50.6M
<input type="checkbox"/> Escalator and Elevator Replacements	\$11.2M

Major 2014 Completions

<input type="checkbox"/> Design of Jamaica Capacity Improvements – Phase I	\$15M
<input type="checkbox"/> Woodhaven Blvd. Bridge Rehabilitation	\$11M
<input type="checkbox"/> 2014 Annual Track Program	\$50.6M
<input type="checkbox"/> Composite Third Rail	\$10.9M
<input type="checkbox"/> Mentor Programs - Various Projects (\$4.2M Fed. MP and \$2.5M SBMP)	\$6.7 M



Current 2010-2014 Capital Program

\$2.314 Billion

Asset Category	5 Year Total
Track	\$846.1
Communications & Signals	\$393.7
Rolling Stock	\$392.7
Miscellaneous	\$170.6
Line Structures	\$142.5
Power	\$130.0
Passenger Stations	\$120.1
Shops & Yards	\$118.1
Total	\$2,313.8

MTA Long Island Rail Road



Current 2010-2014 Capital Program Significant Track Projects

- Jamaica Capacity Improvements - Phase I
- Main Line Double Track - Phase I
- Annual Track Rehabilitation Program
- Atlantic Tunnel Block “Half” Tie Replacement



Jamaica Capacity Improvements Phase I



JAMAICA CAPACITY IMPROVEMENTS

MASTER PLAN

Phase I - Support ESA

- Construction of an additional Station Platform and Reconfiguration of Track will provide the capacity for more train service to Manhattan Terminals (Penn Station and Grand Central Terminal).

Phase II - Improve Jamaica Infrastructure

- Increased train capacity
- Improve interlocking by installing a higher speed track configuration
- All existing station platforms will be 12-cars
- Reduce the “Jamaica Crawl”

Upgrade Infrastructure to Maintain a State of Good Repair (SOGR)

- Approximately Half the Cost will be applied to the replacements of existing switches, track and railroad systems.



JCI Phase I – “Platform F”

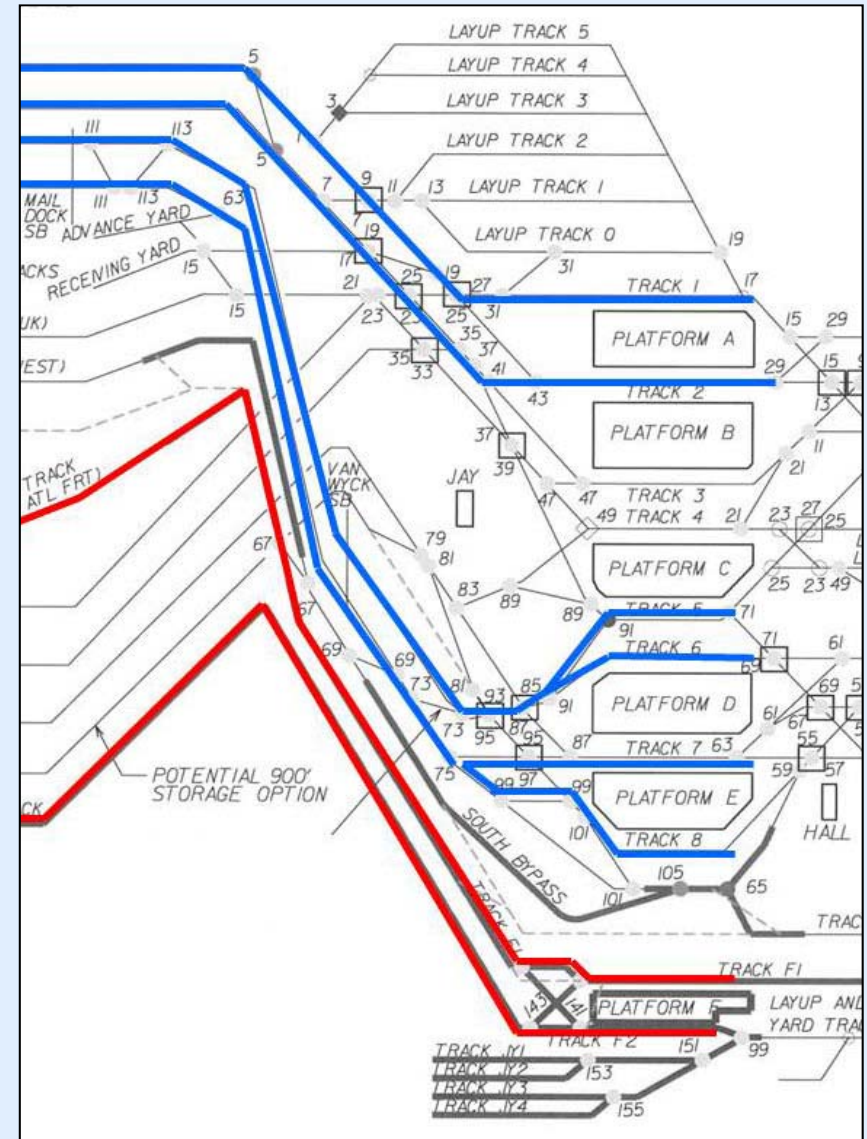
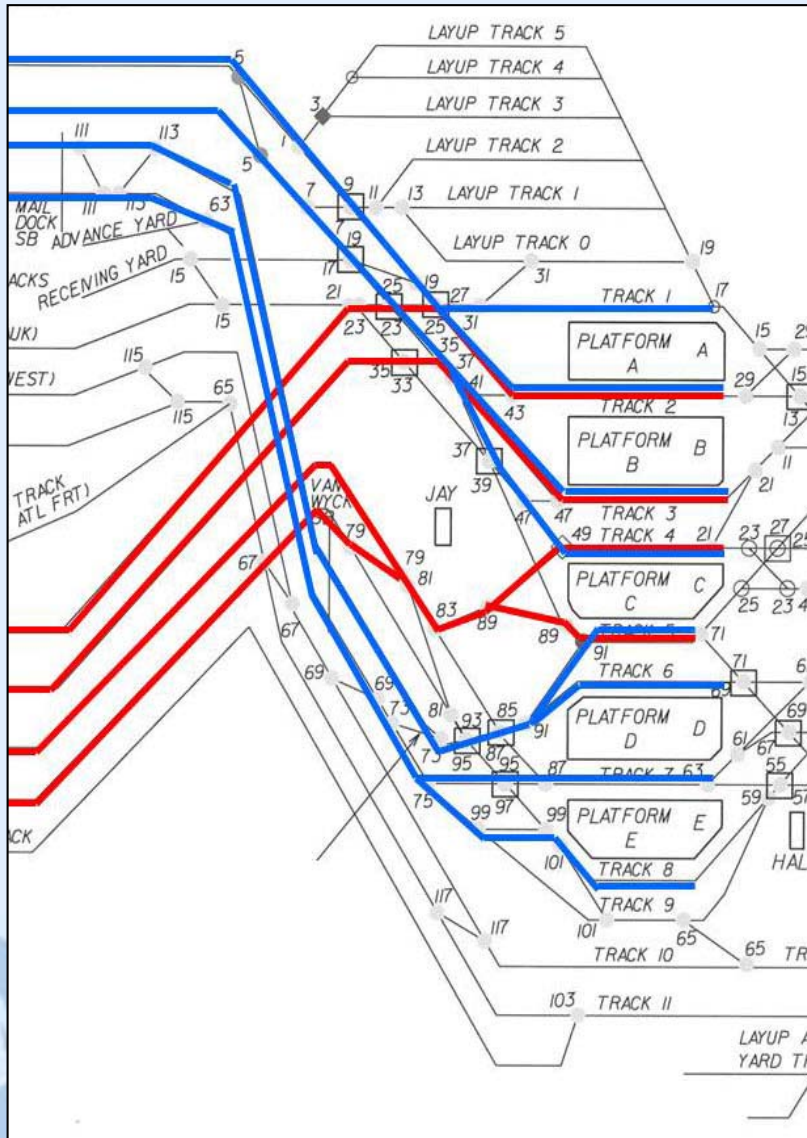
Elimination Brooklyn & Manhattan Bound Conflicts

Current Configuration

Proposed Configuration Platform F

To/from
Manhattan

To/from
Brooklyn



JAMAICA CAPACITY IMPROVEMENTS - PHASE I

(2010-2014 Capital Program)

PHASE I

- **Design**
 - Platform F and Track Reconfiguration Design Complete.

- **Construction**

Johnson Ave. Yard

- Design-Build Contract – Awarded May 2014

Platform F

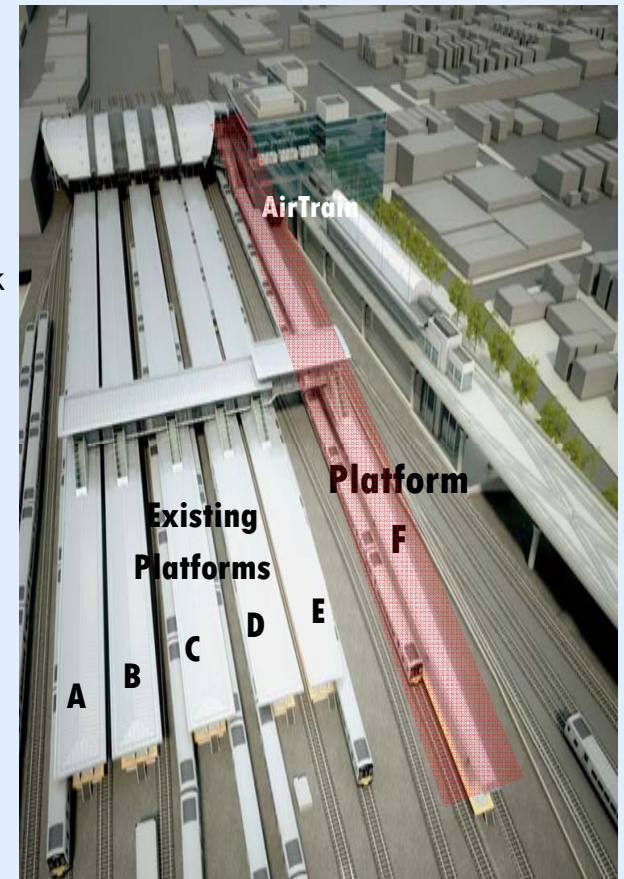
- Platform F Construction scheduled to commence 4th Q 2015
- Delivery of Long-Lead Track Switches are needed for Start of F/A Track Work in 1st Q 2016
- Beneficial Use 4th Q 2018

PHASE II

- Construction - Part of future 2015-2029 Capital Programs



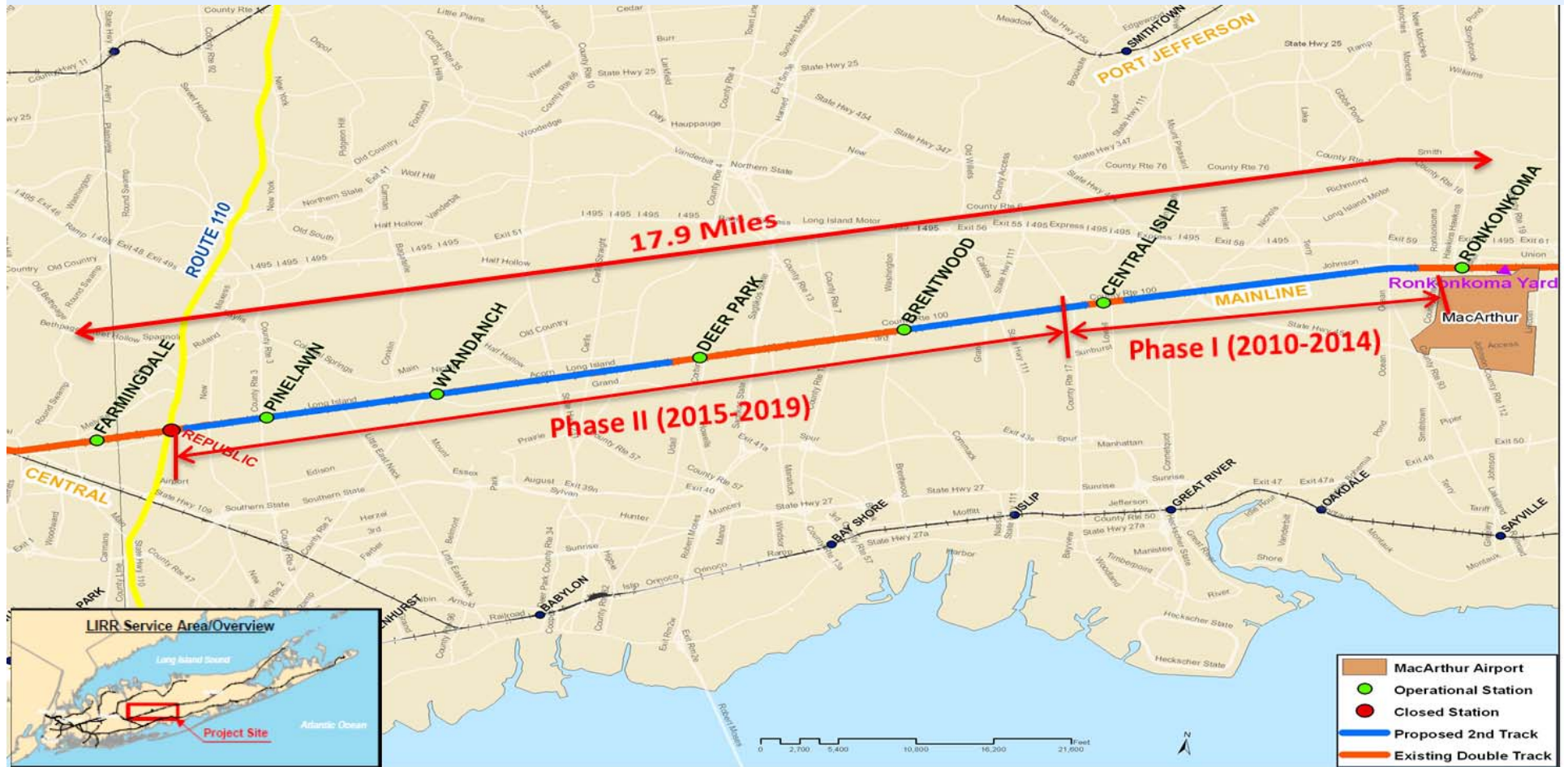
MTA Long Island Rail Road



Main Line Double Track



Farmingdale to Ronkonkoma



MTA Long Island Rail Road

Double Track Project

Fill Walls



Cut Walls



MTA Long Island Rail Road

Double Track – Schedule

Phase I - West of Central Islip to Ronkonkoma

- Award of Design/Build Contract
(Civil and Structural work) Dec 2013 (Actual)
- Completion of Civil and Structural Work Sept 2015
- Track and Systems Installation June 2015 - Sept 2016

Phase 2 - Farmingdale to West of Central Islip

- Proposed in the 2015-2019 Capital Program
- Award of Design/Build Contract
(Civil and Structural work) Dec. 2015
- Completion of Civil and Structural Work July 2017
- Track and Systems Installation April 2017 – Dec 2018



Annual Track Program



Cyclical Track Renewal



ELEMENT OF WORK	2010-2014	
	Goal	Actual
Wood Ties (ea)	168,250	173,251
Concrete Ties (ea)	18,033	23,430
Grade Crossing Renewal (ea)	84	83
Switch Replacement (ea)	34	27
Continuous Welded Rail (CWR) (miles)	27.6	27.6
Surfacing (miles)	408	516
Field Welds (ea)	3,028	3,663
Viaduct Rail Fasteners (ea)	19,672	19,936

Atlantic Branch Block Tie Replacement Study/Design/Construction

SCOPE:

- Design and Construction for the replacement of 21,500 damaged and deteriorated block ties on Tracks 1 and 2 in the Atlantic Branch Tunnel to maintain a state of good repair.

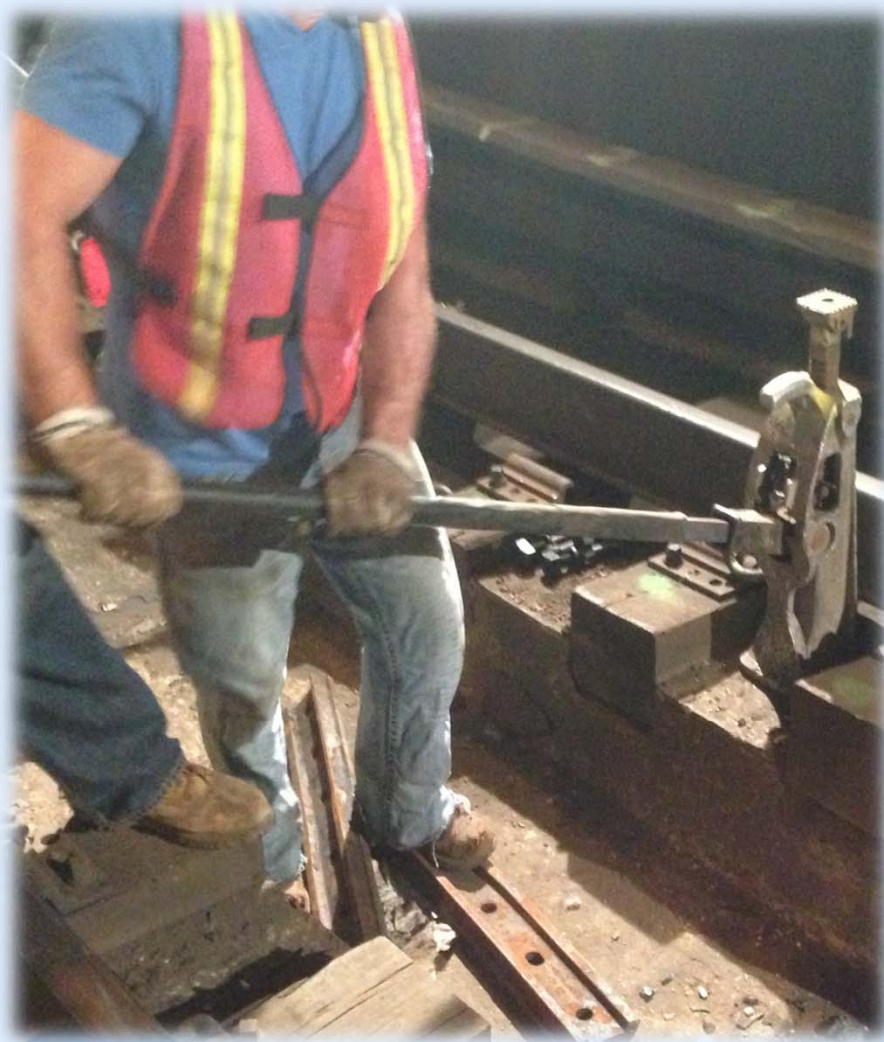
SCHEDULE:

- Design Completed October 2014
- Construction Schedule
 - Awarded December 2014
 - Start March 2015
 - Completion July 2016



MTA Long Island Rail Road





MTA Long Island Rail Road





MTA Long Island Rail Road

February 2015 CPOC IEC Project Review



Jamaica Capacity Improvements – Phase I

February 23, 2015



Schedule & Budget Review

Jamaica Capacity Improvements (JCI) – Phase I

- **Schedule:** The JCI project is on schedule, however schedule issues with the following components were noted:
 - Platform F signal design is being repackaged into construction stages for better coordination and more efficient reviews.
 - A Buy America issue is closer to resolution, either through a waiver or by locating compliant switches in the U.S. A 12-month delay in the procurement resulted. The effect to the construction stages is under review.

The overall construction completion date is not affected. The IEC concurs with the progress reported by the LIRR.

- **Budget:** Currently, the project is on budget and the expenditures to date reflect the percent of project completion.
 - Johnson Avenue Yard award was below the engineer's estimate.



IEC Findings

- To date, the IEC is satisfied with the agency's continuous risk mitigation efforts. Some recent examples are as follows:
 - **Procurement of Long Lead Items:** This risk was mitigated by ordering switches and other long-lead items through the 3rd party Johnson Yard D/B Contractor. Buy America issues resulted in a delay in switch procurement. However, LIRR has requested a Buy America waiver and is presently vetting a U.S. supplier.
 - **Track Outage Unavailability:** This risk is being mitigated by long term and continuous outage planning, and always trying to schedule piggy-back opportunities.
- The IEC continues to monitor the JCI – Phase I project cost and schedule risks, and participate in developing mitigation strategies.



February 2015 CPOC IEC Project Review



Main Line Double Track



February 23, 2015

Main Line Double Track Project

- **Schedule:**
 - The 3rd party civil design build contract is approximately 52 work days behind base schedule.
 - The project end date does not change because of time savings using automated track installation.
- **Budget:**
 - The project is on budget and expenditures to date reflect the correct percentage of project completion.



Segment 1 Major Risks

Delays in Finalizing Environmental Permitting

- **Risk/Issue:** Finalization of Environmental Permitting, to work in the wetland area impacted. This area has been on the Design Build contract critical path starting February 1, 2015.
- **Agency Mitigation:** US Army Corps permit was received on November 14, 2014 and NYS Department of Environmental Conservation permit was received on January 7, 2015. LIRR expects Suffolk County Lakeland County Park access agreement to be finalized before the end of February 2015.



Segment 1 Major Risks (Continued)

Coordination Between 3rd Party and FA Crews

- **Risk/Issue:** Relocation of utility poles represents the primary interface in which DB work is dependent upon FA work completion. This risk has caused some delays to the design build contract critical path.
- **Agency Mitigation:** Replacing some low height walls with re-graded slopes will reduce the quantity of pole relocations that are reliant on FA work.



Main Line Double Track Project

Segment 1 Findings:

- In the opinion of the IEC the project is well managed and appropriate steps are taken to mitigate further cost and schedule risks.



MTA Capital Program Commitments & Completions

through
January 31, 2015

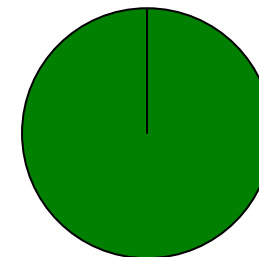
Capital Projects – Major Commitments – January 2015

34 major commitments are planned for 2015, totaling \$3.1 billion. Only projects funded in approved capital plans are included. Projects scheduled in the pending 2015-19 plan will be included after it is approved. One major commitment was planned and achieved in January: LIRR's force account commitment for the Jamaica Capacity Improvement project. Additional year to date commitments will be reported on as the year progresses.

Through January, agencies have committed \$327 million versus a \$372 million YTD goal. The shortfall is due to several slips of smaller commitments at NYCT and MTACC. By year-end, the MTA forecasts committing 100% of its \$3.1 billion goal.

The MTA will also continue to track 2014 major completion goals that slipped beyond 2014. These will be reported quarterly under a separate section (see attached).

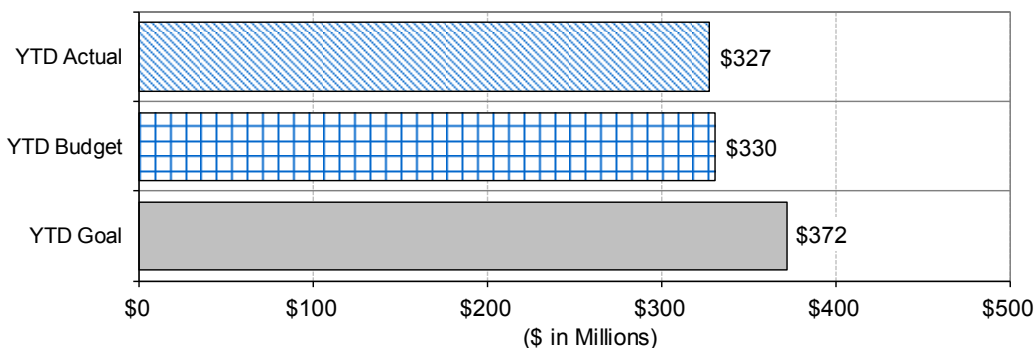
Year-to-Date Major Commitments



	Count	Percent	Change from Prior Month
GREEN = Commitments made/forecast within Goal	1	100%	↑ 1
YELLOW = Commitments delayed beyond Goal (already achieved)	0	-	-
RED = Commitments delayed beyond Goal (not yet achieved)	0	-	-
	1	100%	↑ 1

Budget Analysis

2015 Annual Goal	\$3,133	(\$ in millions)
2015 Annual Forecast	100%	of Annual Goal
Forecast left to Complete	90%	(\$2,820)



Year-to-Date Agency Breakdown

2015 Goals	Prior month variance		
	GREEN	YELLOW	RED
New York City Transit	----	----	----
Long Island Rail Road	1	+	+
Metro-North Railroad	+	+	+
Bridges and Tunnels	+	+	+
Capital Construction Company	+	+	+
MTA Bus Company	+	+	+
MTA Police Department	+	+	+

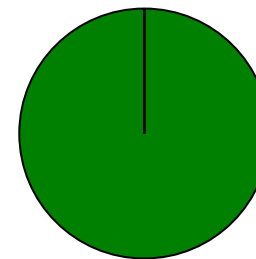
Capital Projects – Major Completions – January 2015

25 major completions are planned for 2015, totaling \$2.7 billion. Only projects funded in approved capital plans are included. Projects scheduled in the pending 2015-19 plan will be included after it is approved. One major completion was planned and achieved in January: B&T's Bronx Whitestone deck replacement. Additional year-to-date completions will be reported on as the year progresses.

Through January, agencies completed \$173 million versus a \$216 million YTD goal. The YTD shortfall is mostly due to delayed non-major completions at NYCT.

By year-end, the MTA forecasts meeting 100% of its \$2.7 billion goal.

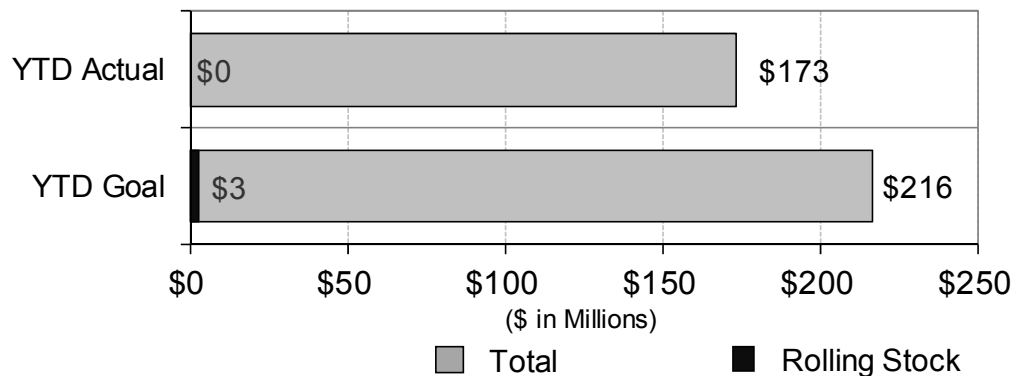
Year-to-Date Major Completions



	Count	Percent	Change from Prior Month
GREEN = Completions made/forecast within Goal	1	100%	↑ 1
YELLOW = Completions delayed beyond Goal (already achieved)	0	-	-
RED = Completions delayed beyond Goal (not yet achieved)	0	-	-
	1	100%	↑ 1

Budget Analysis

2015 Annual Goal	\$2,668	(\$ in millions)
2015 Annual Forecast	100%	of Annual Goal
Forecast left to Complete	94%	(\$2,495)



Year-to-Date Agency Breakdown

2015 Goals	Prior month variance		
	GREEN	YELLOW	RED
New York City Transit	----	----	----
Long Island Rail Road	----	----	----
Metro-North Railroad	----	----	----
Bridges and Tunnels	----	----	----
Capital Construction Company	1	+1 GREEN	----
MTA Bus Company	----	----	----
MTA Police Department	----	----	----

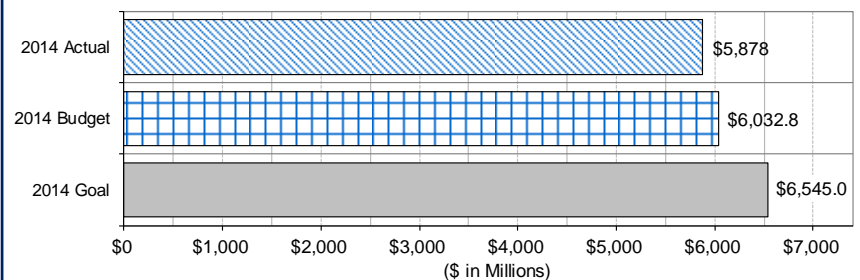
MTA Capital Program Commitments & Completions

Quarterly Report of 2014 Delays

Starting with 2014 goals, any major goals delayed beyond year-end will be continue to be tracked until a project is committed. We will report on the status of these projects on a quarterly basis. All variances are discussed on the following pages.

Through January, Renewal of 3 Sea Beach Stations & Retaining Walls was committed.

2014 Goal	\$6,545.0	(\$ in millions)
Left to Commit	10%	



Actual Goal		MTA-wide 2014 Major Commitments																								Post 2015
		Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	
Total 2014	55	2	1	3	1	7	2	1	1	2	2	2	15	1	1	1	2	1	3	1	1	0	1	0	1	3
Jan-14	0	2																								
Feb-14	0			1	1	1	1																			
Mar-14	0		1	2		2																				
Apr-14	0				2			1																		
May-14	0				2																					
Jun-14	2					1	1			1		1													1	1
Jul-14	2									1	2	1			1											
Aug-14	4																	2	1							1
Sep-14	0											1	2													
Oct-14	2												3													
Nov-14	3												5	1		1			1	1				1		
Dec-14	3												4						1		1					1

GREEN = Commitments made/forecast within Goal

YELLOW = Commitments delayed beyond Goal (already achieved)

RED = Commitments delayed beyond Goal (not yet achieved)

Prior Year Major Commitments – January 2015 – Schedule Variances

Actual Results Shaded

Project	Commitment	Goal	Forecast	Project	Commitment	Goal	Forecast
15 All-Agency Red Commitments (0 new this month)				Sandy Restoration			
NYCT							
Stations							
ADA: Phase 2; 57th Street/7th Ave	Construction Award	Nov-14 \$35.9M	Oct-15 \$44.0M	Rutgers and Cranberry Tubes	Construction Award	Jun-14 \$154.0M	Feb-16 \$165.0M
Delay reflects unforeseen field conditions that needed to be incorporated and, consequently, extended design. Cost increase reflects changes to duct and elevator scope.				The Rutgers tube award has been moved to February, 2016 in order to minimize the impact to the public. Previously Rutgers and Cranberry were a single contract, but are now to be split into separate contracts. To allow for repackaging, the Cranberry award slipped to December, 2014. Project cost adjusted to reflect estimates of separated contracts.			
Station Components: 6 Stations (Jamaica)	Construction Award	Dec-14 \$37.8M	Aug-15 \$37.8M	Clark Street Tube Restoration	Construction Award	Aug-14 \$77.4M	Feb-16 \$77.4M
Delay and cost increase attributed to scope added to the project such as platform slabs, windscreens and girder repairs. Additional delay due to added time needed to incorporate relocation of one elevator into design in order to accommodate duct bank configuration. Cost increase reflects additional scope.				Project has been rescheduled as a result of coordination with other tube projects due to several factors, including programmatic concerns, community impacts and service impacts.			
Facilities							
HVAC Repair and Maint. for DCE Facilities Phase 2	Construction Award	Dec-14 \$53.6M	Jun-15 \$46.5M	53rd St. Tube	Construction Award	Nov-14 \$77.6M	Mar-15 \$87.2M
Project delayed to June 2015 while a review of impacts stemming from fleet HVAC considerations progresses. Cost decrease reflects refined estimates.				Award schedule slipped to March due to protracted advertisement and procurement period. Cost increased reflecting a refined estimate based on RTA.			
Bus Replacement				MNR			
Purchase 231 Articulated Buses	Purchase Award	Jun-14 \$245.5M	Dec-15 \$202.0M	Track			
The number of Articulated buses was reduced from 256 to 231 in order to fund the purchase of 72 standard buses. Delay was due to extended negotiations with vendors and an allowance for possible State review prior to award. Cost decrease reflects the reduced number of buses.				2014 Cyclical Track Program	Construction Award	Oct-14 \$12.7M	May-15 \$12.8M
				Due to other competing priorities, including the Bronx Remediation Project, work was delayed. \$1.2M was committed in December 2014 for purchase of materials, and \$11.6M is left to commit in 2015.			
Depots				Sandy Restoration			
Bus Command Center	Construction Award	Aug-14 \$53.9M	Jun-15 \$42.7M	Power Infrastructure Restoration: 4 Substations	Construction Award	Oct-14 \$48.5M	Apr-15 \$45.9M
The project award has been delayed due to additional scope added to the contract, such as ADA compliance and electrical work, which require additional drawings and specifications. Additional addendum for scope addressing comments on structural and foundation design to delay project beyond year-end. Cost reflects Memorandum of Understanding with MTA Bus and refined engineer's estimate at advertisement.				Delay due to prioritization of design work on Harlem River Lift Bridge facility houses over design of substations. At this time, \$3.3M is left to commit. Cost decrease represents a refined estimate.			

Prior Year Major Commitments – January 2015 – Schedule Variances

Project	Commitment	Goal	Forecast
15 All-Agency Red Commitments (0 new this month) (cont'd)			
MTA Bus			
Depots			
Bus Command Center	Construction Award	Aug-14 \$8.7M	Jun-15 \$14.2M
The project award has been delayed due to additional scope added to the contract, such as ADA compliance and electrical work, which require additional drawings and specifications. Cost reflects Memorandum of Understanding with NYCT and refined engineer's estimate at advertisement.			
Sandy Restoration			
Depot Rehabilitation at Far Rockaway	Construction Award	Dec-14 \$25.3M	Jan-16 \$15.3M
Delay due to additional time needed for compilation of technical design specifications. Additional one month delay due to pending environmental and code compliance reviews. Reduction in budget reflects a revision in the scope of work for the bus washer relocation.			
MTACC			
East Side Access			
GCT Concourse & Cavern Finishes (CM014B)	Construction Award	Jul-14 \$195.5M	Feb-15 \$427.7M
There has been an additional two month slip from December to February due to the extended procurement process. The initial delay was due to a change in the procurement methodology to an RFP process. Forecast value increased due to the decision to include option in base contract and impact of an unfavorable bid.			
Harold Structures Part 3D (CH057)	Construction Award	Apr-15 \$100.1M	Apr-15 \$100.1M
Award date has been updated to reflect adjustments to the overall Harold schedule and in order to allow for assessment of completed work and resource availability in the area of the Harold interlocking. Cost increase reflects repackaging process of Harold.			
MTA Police Department			
PD Communications			
MTA Police Radio Project	Design-Build Award	Jul-14 \$90.3M	Apr-15 \$90.3M
A delay in starting the procurement process has pushed back the forecasted project award date. Continued delays have been attributable to the pace of the procurement process.			

Actual Results Shaded

Project	Commitment	Goal	Forecast
1 All-Agency Yellow Commitments (1 new this month)			
NYCT			
Sea Beach Line: 3 Stations and Retaining Walls - (New Item)	Construction Award	Nov-14 \$124.3M	Jan-15 (A) \$111.8M
Delay was due to extended advertisement in order to increase competition. Additional one month delay attributed to pending approval of DBE goals. Cost decrease reflects budget at award.			

Through January, M8 Car Acceptance and Upgrade Parking Lot at JFK and Baisley Park were completed.

A horizontal bar chart comparing YTD Actual and YTD Goal for Total and Rolling Stock. The x-axis represents the amount in millions of dollars, ranging from \$0 to \$6,000. The y-axis lists the categories: YTD Actual and YTD Goal. For each category, there are two bars: a dark gray bar for Rolling Stock and a light gray bar for Total. The values for Rolling Stock are \$284 million for both YTD Actual and YTD Goal. The values for Total are \$4,557 million for YTD Actual and \$5,722 million for YTD Goal.

Category	Rolling Stock	Total
YTD Actual	\$284	\$4,557
YTD Goal	\$284	\$5,722

Actual		MTA-wide 2014 Major Completions																								Post 2015	
		Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15		
Goal	Total 2014	46	4	3	1	2	1	1	2	4	2	3	2	3	2	0	3	3	1	3	1	0	0	2	0	2	1
Jan-14	1	4																								1	
Feb-14	0		3									1															
Mar-14	0			1									1														
Apr-14	1				1															1							
May-14	0					1							1														
Jun-14	3						1										1	1							1		
Jul-14	3				1										1			1	1								
Aug-14	1							1	1										1								
Sep-14	2									2																	
Oct-14	3								1			1								2							
Nov-14	1								2				1				1						2				
Dec-14	3												2	1				1							1		

YELLOW = Completions delayed beyond Goal (already achieved)

Prior Year Major Completions – Quarterly – January 2015 – Schedule Variances

Actual Results Shaded

Project	Completion	Goal	Forecast
16 All-Agency Red Completions (0 new this month)			
NYCT			
<i>Track & Switch</i>			
Track & Switch Program (19 Projects) - 2nd QTR	Construction	Jun-14 \$40.7M	Mar-15 \$44.1M
2nd Quarter completions were impacted by scheduling conflicts, particularly on the 7th Ave and Concourse Lines. In addition, coordination for piggybacking opportunities for remaining work on the Myrtle Ave Line has resulted in delays. The value of the projects delayed beyond 2014 was \$24M of the \$193M goal. \$4M in savings comes mostly from savings in the 2013 Jamaica switches project.			
Track & Switch Program (4 projects) 3rd Quarter	Construction	Sep-14 \$33.7M	Jun-15 \$36.5M
Completion of work on the Jerome Line has been postponed due to track access and the availability of General Orders. These issues have increased project cost.			
Track & Switch Program (6 projects) 4th Quarter	Construction	Dec-14 \$33.3M	Apr-15 \$33.3M
With the exception of Yard Track and Switch, representing \$3M of the total project cost, the balance of work was completed in 2014.			
<i>Stations</i>			
Station Rehab: Smith- 9th St & 4th Ave	Construction	Jul-14 \$40.7M	Mar-15 \$44.1M
Due to work coordination issues, completion of rehab work is forecasted for September, excluding manuals, As- built drawings and other deliverables. NYCT forecasts Substantial Completion for 1st Quarter 2015. Cost increase reflects extended project duration.			
<i>Line Structures</i>			
Culver Viaduct Rehab Ph 3	Construction	Oct-14 \$49.8M	Oct-15 \$63.0M
Delay attributed to a number of factors including additional steel and concrete needed due to unforeseen site conditions. Cost increase reflects additional quantities and additional scaffolding necessary to protect the public from work through project duration.			
<i>Buses</i>			
AVLM: Paratransit Vehicles	Procurement	Dec-14 \$35.8M	Dec-15 \$37.0M
Delay and cost increase of \$2M due to pre- wiring of an additional 433 vehicles.			

Project	Completion	Goal	Forecast
LIRR			
<i>Power</i>			
F Circuit Breaker House	Construction	Oct-14 \$43.7M	Oct-15 \$43.7M
Delay due to a re- evaluation of the project's need to be informed by a power load study.			
<i>Line Structures</i>			
Atlantic Avenue Tunnel Lighting	Construction	Jun-15 \$7.0M	Mar-15 \$7.0M
Delayed due to an unforeseen issue in tunnel ducts that requires additional abatement efforts.			
MNR			
<i>Track</i>			
West of Hudson Track Program	Construction	Jul-14 \$21.2M	Jan-16 \$19.8M
Work on this project has been delayed due to re- deployment of resources for other MNR priority projects. Budget decrease reflects revised cost to complete.			
MTA Bus Company			
<i>Depots</i>			
Relocate Fuel Tanks at Eastchester Depot	Construction	Sep-14 \$12.9M	Jun-15 \$13.5M
Delay and cost increase attributed to additional scope, inclusive of demolition of bus washer due to unforeseen issue with depot wall. Additional delays due to contractor staffing issues and inclement weather.			
MTACC			
<i>East Side Access</i>			
GCT Concourse Finishes Early Work, CM014A	Construction	Apr-14 \$56.7M	Jul-15 \$56.4M
Delay due to the need to re- design the Supervisory Control and Data Acquisition (SCADA) system and delays in delivery of medium voltage switchgear. Additional one month delay due to mitigation work for leak in facility control room that recently developed.			

Prior Year Major Completions – Quarterly Update – January 2015 – Schedule Variances
Actual Results Shaded

Project	Completion	Goal	Forecast
---------	------------	------	----------

16 All-Agency Red Completions (0 new this month) (cont'd)
MTACC
East Side Access

Harold Structures Part 2A (CH054A)	Construction	Jun-14 \$80.0M	Apr-15 \$67.4M
------------------------------------	--------------	-------------------	-------------------

Delay due to re- design of the 12 kV feeder duct bank and change order work for storm sewer construction. Budget reduced to reflect final approval of outstanding change orders.

Harold Structures - Part 1(CH053)	Construction	Aug-14 \$326.1M	May-15 \$247.4M
-----------------------------------	--------------	--------------------	--------------------

Delays resulting from the cutover of the new duct bank and resource issues have impacted contract and pushed substantial completion beyond 2014. Cost decreased due to change order.

Fulton Center

Transit Center Building (4F)	Construction	Jun-14 \$241.7M	Dec-15 \$316.5M
------------------------------	--------------	--------------------	--------------------

Substantial completion of this contract has been delayed due to extended testing and commissioning and subsequent punchlist items. Security camera work added to contract has delayed substantial completion an additional 6 months.

#7 Extension

Systems, Finishes, and Core & Shell of Site A (Vent Building)	Construction	Oct-14 \$580.1M	Jun-15 \$594.1M
---	--------------	--------------------	--------------------

Contract completion has been delayed due to testing and commissioning of vent fans, inclined elevators and escalators.

MTA Police Department
Facilities

K- 9 Training Facility	Construction	Jul-14 \$15.3M	Apr-15 \$15.5M
------------------------	--------------	-------------------	-------------------

Delay due to unforeseen field conditions at the construction site, which also increased the forecast value.

Project	Completion	Goal	Forecast
---------	------------	------	----------

2 All-Agency Yellow Completions (2 new this month)
MNR
Revenue Cars

Acceptance of M8 Cars - (New Item)	Procurement	Dec-14 \$77.4M	Jan-15 (A) \$77.4M
------------------------------------	-------------	-------------------	-----------------------

Eighty- six of the eighty- eight were accepted in 2014 (\$75.7M). The remaining two cars were accepted in January 2015 (\$1.8M).

MTA Bus Company
Depots

Upgrade Parking Lot: JFK and Baisley Park - (New Item)	Construction	Jul-14 \$9.2M	Jan-15 (A) \$9.2M
--	--------------	------------------	----------------------

Delay was due to requirement from Department of Environmental Protection to reconfigure the connection to the sewer main.