



Metropolitan Transportation Authority

# Capital Program Oversight Committee Meeting

## December 2016

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### Committee Members

T. Prendergast, Chair

F. Ferrer

S. Metzger

J. Molloy

M. Pally

J. Samuelsen

L. Schwartz

P. Trottenberg

J. Vitiello

P. Ward

C. Wortendyke

N. Zuckerman

# **Capital Program Oversight Committee Meeting**

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

**Monday, 12/12/2016  
1:15 - 2:15 PM ET**

## **1. PUBLIC COMMENTS PERIOD**

## **2. APPROVAL OF MINUTES NOVEMBER 14, 2016**

*- Minutes from November '16 - Page 3*

## **3. COMMITTEE WORK PLAN**

*- 2017 CPOC Committee Work Plan - Page 7*

## **4. MTACC SECOND AVENUE SUBWAY (materials to be distributed at meeting)**

## **5. MTACC CORTLANDT STREET #1 LINE**

*- Progress Report on Cortlandt Street #1 Line - Page 9*

*- IEC Project Review on Cortlandt Street #1 Line - Page 17*

## **6. PENN STATION ACCESS PROJECT OVERVIEW (materials to be distributed at meeting)**

## **7. CAPITAL PROGRAM STATUS**

*- Commitments, Completions, and Funding Report - Page 21*

## **8. QUARTERLY TRAFFIC LIGHT REPORTS**

*- Third Quarter Core & Sandy Traffic Light Reports - Page 31*

## **9. QUARTERLY CAPITAL CHANGE ORDER REPORT (for information only)**

*- CPOC Change Order Report - All Agencies - Page 91*

## **10. RISK ASSESSMENT SUMMARY APPENDICES (for information only)**

*- NYCT Viaduct and Bridge Replacement on the Myrtle Avenue Line (BMT) - Page 93*

*- NYCT Design and Construction of Clifton Repair Shop in Staten Island - Page 96*

Date of next meeting: Monday, January 23, 2017 at 1:45 PM

**MINUTES OF MEETING**  
**MTA CAPITAL PROGRAM OVERSIGHT COMMITTEE**  
**November 14, 2016**  
**New York, New York**  
**1:45 P.M.**

MTA CPOC members present:

Hon. Thomas Prendergast  
Hon. Fernando Ferrer  
Hon. Susan Metzger  
Hon. John Molloy  
Hon. Mitchell Pally  
Hon. Polly Trottenberg  
Hon. Peter Ward  
Hon. Carl Wortendyke  
Hon. Neal Zuckerman

MTA CPOC members not present:

Hon. John Samuelson  
Hon. Lawrence Schwartz  
Hon. James Vitiello

MTA Board members present:

Hon. Andrew Albert  
Hon. Veronica Vanterpool

MTA staff present:

Joshua Martiesian  
Craig Stewart  
Michael Wetherell

LIRR staff present:

Bernadette Cicchesi

MNR staff present:

Wendy Johnston

MTACC staff present:

Michael Horodniceanu  
Anil Parikh

NYCT staff present:

Bill Montanile  
John O'Grady  
Dilip Patel

Independent Engineering Consultant Staff Present:

Joe DeVito  
Philip Dixon  
Kent Haggas  
Mark Sielucka

\* \* \*

Chairman Prendergast called the November 14, 2016 meeting of the Capital Program Oversight Committee to order at 1:15 P.M.

### **Public Comments Period**

There were two public speakers in the public comments portion of the meeting: Omar Vera and Jason Pineiro.

### **Meeting Minutes**

Upon motion duly made and seconded, the CPOC members approved the minutes to the previous meeting held on October 26, 2016.

### **Committee Work Plan**

Mr. Stewart announced that there were two changes to the Work Plan: the Executive Session that had been scheduled for the last CPOC was moved to this CPOC due to a number of meetings running long last month. As a result, in order to stay within the allotted time, NYCT's reports on Communications and the Bus Command Center, originally scheduled for this month, will instead be provided early next year.

### **MTACC Monthly Update on Second Avenue Subway**

Mr. Parikh reviewed the status of a number of Critical Milestones and Issues and then reported that NYCT completed Train Crew Training on November 4, 2016, and that contractors have made significant progress in reducing the open building code items and are on track to complete by revenue service. In addition, Mr. Parikh reported that testing progress has improved and integration of elevators, escalators and fire safety equipment into the fire alarm system at 72<sup>nd</sup> and 86<sup>th</sup> Street Stations is being streamlined; these changes will allow the completion of testing needed for Revenue Service in December 2016. Finally, Mr. Parikh stated that building code and testing requirements must be met and documented in order to achieve Safety and Security Certification prior to Revenue Service. In its Project Review, the IEC cited the following with respect to station completions: Lexington Avenue/63<sup>rd</sup> Street Station is expected to be ready for operation in November; 96<sup>th</sup> Street Station finish is tracking for completion by the end of November, but stations communications and fire alarm work will extend into December; the contractor has committed to a new test program for the last three escalators to be complete by December 9<sup>th</sup>; and at the 72<sup>nd</sup> Street Station the contractor has held the end of November as the test completion date for all elevators and escalators, but integration into the fire alarm system will extend to mid-December. With respect to systems testing, the IEC cited the following: the rate of test completions has improved over the last two weeks and now needs to be maintained to finish all required tests before commencement of revenue service; and the completion of required fire safety and alarm tests by December 15<sup>th</sup> will entail an unprecedented concentration of contractor, MTACC and NYCT resources. With respect to Verifications, the IEC stated that while building code compliance items necessary for the finish of station rooms continue to be reduced, a significant effort is needed to address remaining code deficiencies before commencement of revenue service, and that the final check of items required for Safety and Security Certification is underway, but that the timely completion of this effort will depend on the expedited submission of all required test reports and completion of a hazard analysis. 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. Martiesian provided an update on the NYCT New Fare Payment System (NFPS), including agency plans and progress, and as well as a Program overview and details regarding Enhanced Customer Experience. Ms. Johnston then provided updates on the Commuter Railroads' Mobile Ticketing program, known as MTA E-Tix., as well as the Long-Term Strategy Study. Mr. Martiesian then concluded the presentation with an explanation of the phased approach to the NFPS RFP/Procurement. In its Project Review, the IEC stated that the NFPS RFP and documented requirements are well-suited to a modern fare payment system, and cited plans for early

interoperability testing/piloting between NFPS and e-Tix as good practice. The IEC then referenced the project risk assessment as having identified the following as high risk: procurement contract award schedule; timeline for program development, testing and deployment; and dependence on deployment of NYCT's Passenger Station Local Area Network (PSLAN). With respect to the project budget, the IEC stated that the unmitigated initial risk assessment results indicated that the \$450 million overall project budget may be a challenge when considering full deployment and escalation timeframes. The IEC concluded its presentation by stating that the most important aspect of the long-term interoperability between NFPS and e-Tix is the consistent and integrated experience from the standpoint of the MTA customer, i.e., one account, one media and one set of customer service tools for all transportation modes. 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 Capital Program Update**

Mr. Patel updated the Committee on progress in the Stations Division, including an overview of the Sea Beach Line Renewal project, an overview of the 2010-14 and 2015-19 Programs, progress since the last report in January 2016, and photos of recently completed projects. Mr. Montanile then gave an overview of the Station Division Enhanced Station Initiative (ESI), which includes stations across the five boroughs that will be brought to a state of good repair on a compressed schedule using the design-build method of project delivery and will feature the following customer-facing improvements: new canopies and totems at station entrances; new furniture; technology integration (including Dashboard); improved finishes; improved wayfinding; new lighting scheme; and decluttering. In its Project Review of the Sea Beach Line Station Renewal, the IEC stated that, although significant station improvements and upgrades have been accomplished to date, risks stemming from the following additional scope may negatively impact the cost and the overall substantial completion date of December 2018: unforeseen priority structural steel repairs and replacement work under 8<sup>th</sup> Avenue Station; and ADA-compliant elevators at 8<sup>th</sup> Avenue Station. The IEC then recommended the following: that the project team work toward approving a Recovery Schedule, incorporating all additional scope, potential time extensions, and address major activity slips to provide an accurate assessment of the current project status, and identify any negative impacts to the reopening of the Northbound Station Platforms and the overall substantial completion date; and that the project team concentrate on monitoring intermediate return-to-service dates, inspections and key beneficial use dates to gauge contractor performance and to mitigate project risks and issues impacting the 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.

### **MTA Capital Program Commitments & Completions and Funding**

Mr. Stewart reported that in 2016 agencies plan to commit a total of \$6.6 billion dollars, including 41 major commitments. He then stated that to date 29 major commitments were planned. Of these, 17 have been achieved (13 on time or early, 4 were delayed but have since been committed), and 12 remain delayed. By year end, the MTA forecasts meeting 99% of its annual goal. With respect to completions, the agencies plan a total of \$4.6 billion in 2016, including 43 major completions. To date, 32 major completions are being tracked. Of these, 26 have been completed (21 on time or early, 5 were delayed but have since been completed), and 6 remain delayed. Year to date, agencies have completed \$2.1 billion versus a \$2.6 billion goal. By year end, the MTA forecasts meeting its annual completions goal of \$4.6 billion.

### **Executive Session**

Upon motion duly made and seconded, Chairman Prendergast adjourned the public CPOC meeting at 2:27 PM to go into Executive Session.

### **Adjournment**

Upon motion duly made and seconded, Chairman Prendergast adjourned the Executive Session,

reconvened the public session and then immediately adjourned the November 14, 2016 meeting of the MTA Capital Program Oversight Committee

Respectfully submitted,  
Michael Jew-Geralds  
Office of Construction Oversight



## **2017 CPOC Committee Work Plan**

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I. Recurring Agenda Items

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

II. Specific Agenda Items

January 2017

NYCT Capital Program Update

- Sandy Recovery and Resiliency Update
- Subway Car Program Update
- Bus Procurement Update

February 2017

B&T Capital Program Update

- Verrazano –Narrows Bridge Program Update
- Tunnel Program Update
- Robert F. Kennedy Bridge Program Update
- New York Crossings Update

LIRR and MNR Update on Positive Train Control (PTC)

Update on Minority, Women and Disadvantaged Business Participation

March 2017

Quarterly MTACC Capital Program Update

Quarterly Change Order Report

Quarterly Traffic Light Reports

April 2017

NYCT Capital Program Update

Update on Capital Program Security Projects (in Exec Session)

May 2017

LIRR and MNR Capital Programs Update

NYCT, LIRR, MNR Update on New Fare Payment System

June 2017

Quarterly MTACC Capital Program Update  
LIRR and MNR Update on Positive Train Control (PTC)  
Quarterly Change Order Report  
Quarterly Traffic Light Reports

July 2017

NYCT Capital Program Update

September 2017

Quarterly MTACC Capital Program Update  
Quarterly Change Order Report  
Quarterly Traffic Light Reports  
Update on Minority, Women and Disadvantaged Business Participation

October 2017

LIRR Capital Program Update  
MNR Capital Program Update  
LIRR and MNR Update on Positive Train Control (PTC)

November 2017

NYCT Capital Program Update  
CPOC Committee Charter Review

December 2017

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

# **MTACC Quarterly Progress Report to CPOC**

## **Cortlandt Street #1 Line Station Reconstruction**

December 12, 2016

## Project Overview

### Overall Status

Item	Comments
Schedule	Substantial Completion is August 2018
Cost	Current Budget is \$158.4 million (excludes Risk Reserve) is under review

### Highlights

#### Progress

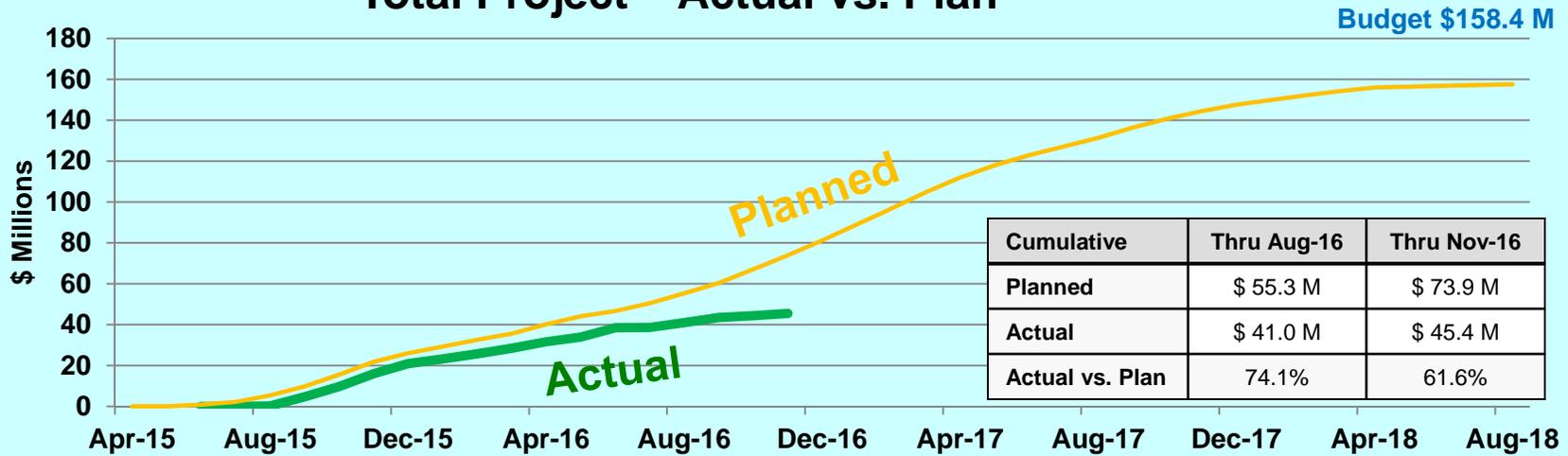
- Completed intumescent painting (Fireproof coating) of centerline columns
- Negotiated and completed patching and mineral coating of ceiling over tracks. This work was additional contract work
- Completed concrete demolition required for installation of the electrical service duct bank on southbound platform
- Performed additional test pits for new Con Edison service required to find an alternative path
- Completed installation of tactile tile at platform edges

#### 90 Day Look Ahead

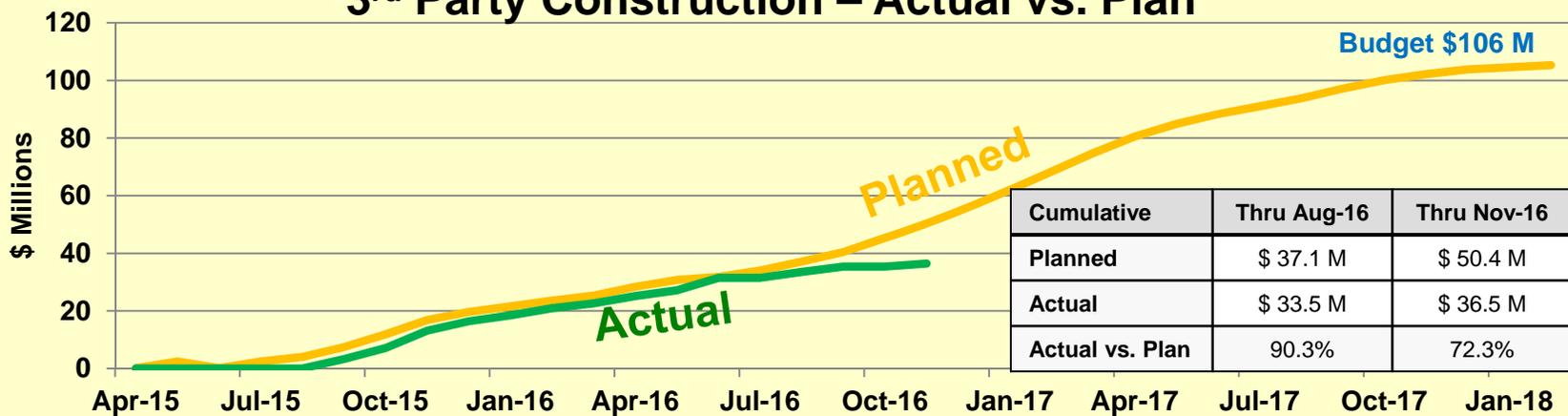
- Complete new electrical service duct bank and conduit installation at southbound platform (3 months later than last report)
- Continue negotiations for the additional communication and electrical design changes (3 months later than last report)
- Continue northbound and southbound platform construction where impacted by design changes
- Begin patching and mineral coating of ceilings over platform areas

# Cost & Schedule Performance

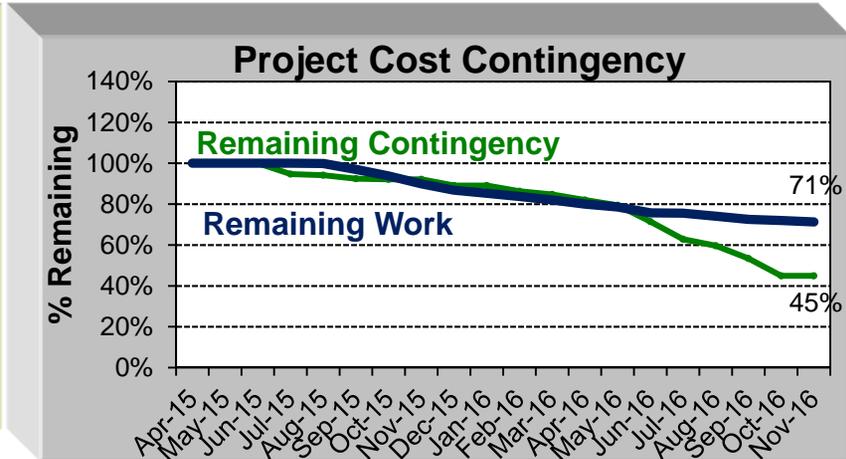
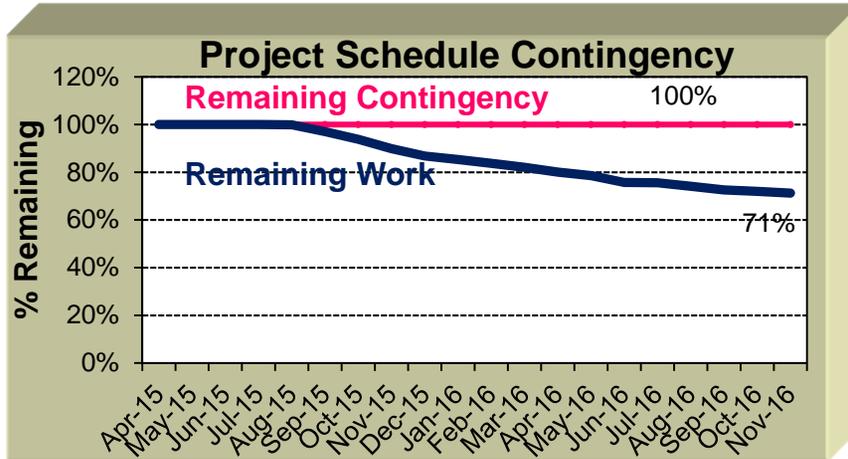
## Total Project – Actual vs. Plan



## 3<sup>rd</sup> Party Construction – Actual vs. Plan



## Cost & Schedule Contingency Status



- 2015 schedule contingency: 181 days (6 months)
- Current schedule contingency is impacted by the communication and electrical changes (Bulletin 2).

- Original Budget contingency was established at \$5.6 million
- Current contingency is \$2.5 million, \$0.8 million less than last report (\$3.3 million).
- \$10.9 million of the project budget is allocated for known anticipated change orders.
- Project budget is under review to assess the value of the unmitigated risk reserve (\$16.9M) which is currently not included in the project budget

## Critical Milestones and Issues

Status	Activity	Date Needed	Issues
 Yellow	<b>Demolition of the Existing PATH Station North Temporary Access (NTA) and Construction of West Bathtub Vehicle Access (WBVA) Foundation by PANYNJ for Installation of Vesey Street Entrances</b>	<b>June 2017</b>	<p><b>Issue:</b> Potential delays by the Port Authority of New York and New Jersey (PANYNJ) to demolish the PATH Station North Temporary Access and construction of the West Bathtub Vehicle Access (WBVA) foundation can delay project completion.</p> <p><b>Impact:</b> If full access, including installation of the foundation (WBVA), is not provided by PANYNJ by June 2017, the contract completion could be delayed.</p> <p><b>Mitigation:</b> PANYNJ has committed in writing to provide “best effort” to deliver elevator area by June 2017 with stairs to follow. MTA will accelerate construction of the stairs and elevator as soon as access is provided by PANYNJ. PANYNJ has commenced deconstruction of NTA structure. MTACC will continue to monitor progress and discuss opportunities for resequencing work to complete the Cortlandt Street Project.</p>

### Legend

	Red	Significant impacts with potential impacts on Revenue Service Date, Cost, or Customer Benefit Milestones
	Yellow	Impacts which can lead to cost increases or schedule delays on individual milestones or contracts.
	Green	No Near Term Impact for Design, Procurement & Construction. Successful management of major activity to stay on schedule or budget.

## Critical Milestones and Issues

Status	Activity	Date Needed	Issues
 Yellow	<b>Relocation of            PANYNJ Installed            Utilities Located            within MTA            Allocated Space</b>	<b>Various</b>	<p><b>Issue:</b> PANYNJ has installed various PANYNJ and Retail Tenant utilities within MTA allocated spaces.</p> <p><b>Impact:</b> Some of the PANYNJ installed utilities interfere with the construction of the station rooms and systems.</p> <p><b>Mitigation:</b> MTA and PANYNJ meet weekly to review the interferences and resolve critical interferences. It has been necessary for the Designer of Record to redesign aspects in order to relocate utilities that directly interfere with station construction, such as exhaust ducts. MTACC continues to coordinate resolution of interferences with PANYNJ. Approximately 80% of interferences have already been completed. However, the remaining 20% will require increased efforts to resolve.</p>

### Legend

	Red	Significant impacts with potential impacts on Revenue Service Date, Cost, or Customer Benefit Milestones
	Yellow	Impacts which can lead to cost increases or schedule delays on individual milestones or contracts.
	Green	No Near Term Impact for Design, Procurement & Construction. Successful management of major activity to stay on schedule or budget.

## Critical Milestones and Issues

Status	Activity	Date Needed	Issues
 Yellow	<b>Construction of New Con Edison Service from Liberty Street</b>	<b>March 2017</b>	<p><b><u>Issue:</u></b> New Property Line Boxes (PLB's) and conduit paths cannot be installed as designed due to utility congestion from Liberty Street to Greenwich Street. Initial test pits in Liberty street indicated substantial amount of existing utilities, including Empire City Subway (ECS), sewer, water and steam precluding the installation of PLB's and conduit as designed.</p> <p><b><u>Impact:</u></b> Inability to install PLB's and conduit as designed may result in schedule delays and increased cost.</p> <p><b><u>Mitigation:</u></b> Additional test pits were completed and an alternate path has been submitted to Con Edison for review. MTA has met with Con Edison, PANYNJ and NYC DOT to address issues with new route. Approval is pending Con Edison review.</p>

### Legend

	Red	Significant impacts with potential impacts on Revenue Service Date, Cost, or Customer Benefit Milestones
	Yellow	Impacts which can lead to cost increases or schedule delays on individual milestones or contracts.
	Green	No Near Term Impact for Design, Procurement & Construction. Successful management of major activity to stay on schedule or budget.

## Critical Milestones and Issues

Status	Activity	Date Needed	Issues
 Red	<b>Negotiate Cost and Schedule Impacts with Contractor for Electrical, Communications, Mechanical and Plumbing Design Changes (Bulletin 2)</b>	<b>December 2016</b>	<p><b>Issue:</b> Necessary design changes to the communications, electrical, mechanical and plumbing systems require changes to the contract's scope of work. In July, MTA issued the contractor the new designs and requested a cost proposal for the new work. The contractor's failure to respond to MTA's requests for a cost proposal on the new design changes has limited the work progress for 4 months.</p> <p><b>Impact:</b> Delays in commencing this additional work will delay the project completion date.</p> <p><b>Mitigation:</b> MTA is evaluating potential plans to minimize schedule impacts, but all mitigation plans are dependent upon the contractor's willingness to participate in contract negotiations in a timely manner.</p>

### Legend

	Red	Significant impacts with potential impacts on Revenue Service Date, Cost, or Customer Benefit Milestones
	Yellow	Impacts which can lead to cost increases or schedule delays on individual milestones or contracts.
	Green	No Near Term Impact for Design, Procurement & Construction. Successful management of major activity to stay on schedule or budget.

# December 2016 CPOC IEC Project Review



## Cortlandt Street # 1 Line Station Reconstruction

1

December 12, 2016



# Schedule & Budget Review

**Schedule:** The IEC concurs that updates to communication and electrical systems will impact the schedule contingency.

- Delays in negotiating these updates may also impact project completion.

**Budget:** Review of the project budget concludes the following:

- The remaining construction contingencies may be inadequate to support the project to completion.
- Additional funding may be required for design costs.
- Additional funding may be required for agency costs if project completion is delayed.



# IEC Observations

- Contractor productivity to date has not met the level required to achieve the August 2018 project completion date.
- The IEC concurs with MTACC that work progress has been limited due to the contractor's failure to respond to agency issued RFPs for critical communication and electrical work.
- Improved coordination between the PANYNJ, other WTC stakeholders and MTACC has resulted in a reduction of risks related to interface issues (such as the Vesey St. Entrance).



# IEC Observations

Sufficient time remains to complete the work required to open the Cortlandt Street #1 station by the completion date of August 2018.

However, the IEC believes this completion date can only be achieved if the following occurs:

- MTACC and the contractor agree upon a recovery schedule;
- All outstanding changes to the project scope are approved and integrated into the recovery schedule;
- The contractor commits to an increased level of productivity required by the recovery schedule.



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# **MTA Capital Program Commitments & Completions**

## **through November 30, 2016**



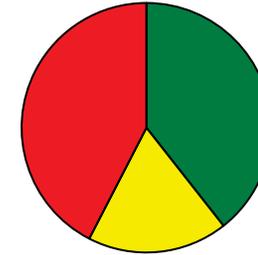
### Capital Projects – Major Commitments – November 2016

Through November, 33 major commitments were planned and 19 were achieved. Seven were on time, six were late but have since been committed, and six were committed early; 14 remain delayed. All delayed projects are explained on the following pages.

Year to date, agencies have committed \$3.8 billion versus a \$6.2 billion goal. The shortfall versus goal is mainly due to the delayed commitments, which includes NYCT's Sandy projects (Canarsie Tube, Clifton Shop, 207th Street Yard Perimeter Protection & Power Cable) and Bushwick Cut/Myrtle Bridge, as well as MTACC's Mid-Day Storage Yard and Second Avenue Subway PE Design Contract.

By year-end, MTA agencies continued to forecast meeting 85% of its \$6.6 billion goal, but doing so is reliant upon them achieving their aggressive December forecasts.

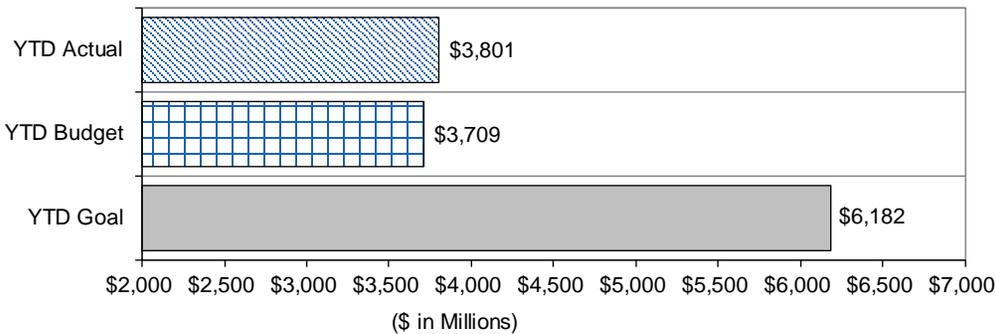
### Year-to-Date Major Commitments



	Count	Percent	Change from Prior Month
<b>GREEN</b> = Commitments made/forecast within Goal	13	39%	-
<b>YELLOW</b> = Commitments delayed beyond Goal (already achieved)	6	18%	↑ 2
<b>RED</b> = Commitments delayed beyond Goal (not yet achieved)	14	42%	↑ 2
<b>Total</b>	<b>33</b>	<b>100%</b>	<b>↑ 4</b>

### Budget Analysis

2016 Annual Goal	\$6,578	(\$ in millions)
2016 Forecast	85%	of Annual Goal
Forecast left to Commit	32%	(\$1,798)



### Year-to-Date Agency Breakdown

2016 Goals	Prior month variance		
	GREEN	YELLOW	RED
<b>New York City Transit</b>			
5 GREEN, 3 YELLOW, 9 RED	----	+1 YELLOW	+1 RED
<b>Long Island Rail Road</b>			
7 GREEN, 1 YELLOW, 1 RED	----	----	+1 RED
<b>Metro-North Railroad</b>			
1 RED	----	----	----
<b>Bridges and Tunnels</b>			
1 GREEN	----	----	----
<b>Capital Construction Company</b>			
2 GREEN, 3 RED	----	+1 YELLOW	----
<b>MTA Bus Company</b>			
	----	----	----
<b>MTA Police Department</b>			
	----	----	----

**Capital Projects – Major Commitments – November 2016 – Schedule Variances**
**Actual Results Shaded**

Project	Commitment	Goal	Forecast	Project	Commitment	Goal	Forecast
<b>14 All-Agency Red Commitments (4 new this month)</b>							
<b>NYCT</b>				<b>NYCT</b>			
<u>Line Structures &amp; Track</u>				<u>Sandy Recovery &amp; Mitigation</u>			
Bushwick Cut / MYR Bridge Over Atlantic	Construction Award	Sep-16 \$70.9M	Dec-16 \$150.2M	<b>Sandy Canarsie Tube Restoration &amp; Core Capacity Improvements (New Item)</b>	Construction Award	Nov-16 \$883.3M	Jan-17 \$899.6M
<p>Project award delayed to allow for adequate time for Request for proposals (RFP) procurement method which typically takes longer. The Procurement Staff Summary is expected to be on the December Board agenda. Project cost increased due to additional scope including new bridge seat, longer bridge, replacement of substructure, inclusion of track work, increase estimate of property acquisition and the need for temporary Car Inspection Facility to inspect trains during shuttle operations.</p>				<p>The award schedule delayed due to a protracted procurement process. Project cost increased reflecting updated Engineer's estimates.</p>			
<u>Sandy Recovery &amp; Mitigation</u>				<u>Sandy: Clifton Shop (New Item)</u>			
Sandy Mitigation: 7 Stations (Manhattan/Queens/Bronx Initiative)	Construction Award	May-16 \$96.3M	Feb-17 \$51.7M	Sandy: Clifton Shop (New Item)	Construction Award	Nov-16 \$210.3M	Dec-16 \$215.0M
<p>Delay in advertisement postponed the award. Authorization to advertise approved with bids expected in December. Prior delays include pending design drawings approvals, finalization of specs and contract documents, and issuance of notice to proceed for CCM to start constructability review, and revised mitigation solution for a staircase at 155 St on the Concourse Line due to maintainability concerns.</p>				<p>The award schedule delayed due to protracted procurement process. A Bidder was selected by the Selection Committee and Procurement package is on the December Board agenda. Project cost increased reflecting higher engineering estimate.</p>			
<u>Signals</u>				<u>Signals</u>			
Sandy Mitigation: 13 Fan Plants, Long-Term - 5 Locations	Construction Award	Jun-16 \$46.2M	Dec-16 \$32.6M	CBTC Queens Boulevard West - 50 St to Union Tpke: Phase 2	Construction Award	Jun-16 \$143.7M	Dec-16 \$408.8M
<p>Project award delayed due to extended advertisement period and postponements of the bid. It was further delayed to December for vendor background checks and insurance approvals. Project cost decreased reflecting favorable bids.</p>				<p>Contract award delayed to December. Procurement Staff Summary being circulated for approval. Previous delays were due to approval of budget modification from an unfavorable bid and several earlier bid opening postponements. Bids received and exceed allocated budget. The current estimate reflects the full cost of the project including support costs for the duration of the contract and higher costs from bids received. The goal budget assumed only partial support costs due to limited funding prior to program approval.</p>			
<u>Stations</u>				<u>Stations</u>			
Sandy Mitigation: 9 Stations (Brooklyn/Queens Initiative)	Construction Award	Jun-16 \$100.7M	Jan-17 \$56.2M	ADA: 68 St-Hunter College /	Construction Award	Sep-16 \$66.8M	Jan-17 \$66.8M
<p>Delay in advertisement postponed the award. Bid opening scheduled in November. Earlier delay pending design drawings approvals, finalization of specs and contract documents. Project cost decreased reflecting RTA estimate.</p>				<p>Most recent delay due to revisited constructability for possible reduction in duration. Previous project schedule delayed pending FTA Finding of No Significant Impact (FONSI) and resolution of property acquisition of the Imperial House property.</p>			
Sandy: 207th Yard Perimeter Protection & Power Cable	Construction Award	Oct-16 \$222.7M	Jun-17 \$222.7M				
<p>Project award slipped to June 2017 due to ongoing NYC DEP issues regarding existing sewer relocation and the need for further coordination.</p>							

**Capital Projects – Major Commitments – November 2016 – Schedule Variances**

<b>Project</b>	<b>Commitment</b>	<b>Goal</b>	<b>Forecast</b>
<b>LIRR</b>			
<i>Stations</i>			
<b>Nostrand Avenue Station</b> (New Item)	Construction Award	Nov-16 \$21.0M	Mar-17 \$21.0M
Approval to advertise was received in November, which was delayed as the LIRR sought approvals from all stakeholders. Approval was also needed for renderings for a public notice.			
<b>MNR</b>			
<i>Track</i>			
Cyclical Track Program	Construction Award	Aug-16 \$22.0M	Dec-16 \$22.0M
Due to the reprioritization of track maintenance projects, some planned 2016 cyclical track work has been delayed until December 2016.			
<b>MTACC</b>			
<i>East Side Access</i>			
<b>Mid-Day Storage Yard</b> (New Item)	Construction Award	Nov-16 \$266.0M	Feb-17 \$266.0M
The delay is due to additional time required to complete a project risk assessment and to receive approvals to advertise from all sources.			
<i>Second Avenue Subway Ph. 2</i>			
Environmental Assessment	Construction Award	Jul-16 \$10.0M	Dec-16 \$2.3M
Additional review, outreach consultant, design and environmental issues have resulted in a delay in the award. Design and Environmental contracts were approved at Nov MTA Board. Contracts are being finalized and will be awarded shortly.			
PE Design Contract	Construction Award	Jul-16 \$100.0M	Dec-16 \$120.5M
Additional review, outreach consultant, design and environmental issues have resulted in a delay in the award. Design and Environmental contracts were approved at Nov MTA Board. Contracts are being finalized and will be awarded shortly.			

**Capital Projects – Major Commitments – November 2016 – Schedule Variances**
*Actual Results Shaded*

Project	Commitment	Goal	Forecast	Project	Commitment	Goal	Forecast
<b>6 All-Agency Yellow Commitments (2 new this month)</b>							
<b>NYCT</b>							
<i>Signals &amp; Communications</i>							
Passenger Station LAN: 188 Stations	Construction Award	Feb-16	Mar-16 (A)				
		\$50.0M	\$50.0M				
Award was delayed because of additional time required to secure necessary approvals for budget changes and authorizations to approve the commitment.							
Kings Hwy Interlocking / Culver	Construction Award	Jun-16	Oct-16 (A)				
		\$150.0M	\$177.2M				
Award was delayed due to bid postponements from 'bidders' questions, budget modifications to address increased costs from an unfavorable bid and additional scope related to Church Ave Interlocking. The current estimate reflects the full cost, while the goal budget reflected limited funding availability prior to capital plan approval.							
<i>Miscellaneous/Emergency</i>							
<b>Power Upgrade: RCC, PCC</b> <b>(New Item)</b>	Construction Award	Jul-16	Nov-16 (A)				
		\$50.2M	\$50.2M				
Project delayed to November due to an extended advertisement process.							
<b>LIRR</b>							
<i>Track</i>							
Amtrak Territory Projects	Construction Award	Jun-16	Jul-16 (A)				
		\$17.0M	\$32.5M				
Award delayed due to additional time required by the Procurement Department to perform audit of the bidders.							
<b>MTACC</b>							
<i>East Side Access</i>							
Grand Central Terminal Station Caverns & Track	Construction Award	Feb-16	Apr-16 (A)				
		\$777.4M	\$712.0M				
The delay was due to MTACC finalizing open issues prior to issuing a notice to proceed, which was issued in April. The award value reflects a favorable bid.							
<b>Harold Tunnel A Construction</b> <b>(CH061A) (New Item)</b>	Construction Award	Jul-16	Nov-16 (A)				
		\$56.6M	\$54.2M				
Additional time required for extended review processes prior to advertisement and in procurement. Due to resource issues in the Harold Interlocking the award of this contract has been delayed. Budget adjusted to reflect good bid and force account costs.							

**Capital Projects – Major Commitments – 2016 – Budget Only\* Variances**
*Actual Results Shaded*
*\*for variances of more than \$5 million or 10%*

<b>Project</b>	<b>Commitment</b>	<b>Goal</b>	<b>Forecast</b>
<b>4 All-Agency Budget Only Commitments (0 new this month)</b>			
<b>NYCT</b>			
<i>Sandy Resiliency &amp; Restoration</i>			
Sandy Mitigation: 17 Fan Plants & Adjacent Tunnels	Construction Award	Jul-16 \$45.7M	May-16 (A) \$39.2M
Awarded in May 2016.			
<i>Track</i>			
Mainline Track Replacement 2016 / 63rd St	Construction Award	Mar-16 \$40.0M	Feb-16 (A) \$29.2M
Awarded in February with savings reflecting a favorable bid.			
<b>LIRR</b>			
<i>Track</i>			
2016 Track Program	Construction Award	Mar-16 \$17.8M	Feb-16 (A) \$59.7M
Originally committed in February 2016. The actual value was increased in June following the approval of the 2015-19 Capital Plan.			
Jamaica Capacity Improvements Phase I	Construction Award	Sep-16 \$82.1M	Sep-16 (A) \$68.3M
Savings reflect a good bid for the Platform F contract.			

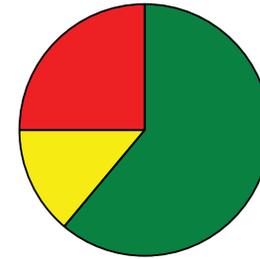
### Capital Projects – Major Completions – November 2016

Through November, 32 major completions were planned and 27 were achieved. 13 were on time, five were delayed but have since been completed, and nine were completed early; nine remain delayed. All delayed projects are reported on the following pages.

To date, the MTA has completed \$2.3 billion of its \$3.6 billion year-to-date goal. The shortfall primarily due to the delayed completion of three Second Avenue Subway Station Finishes (72nd, 86th, and 96th Streets), and East Side Access Plaza Substation & Structures. The 2nd Avenue Subway completions are forecast for December while the ESA item is forecast for January 2017.

By year-end, MTA agencies continue to forecast meeting 94% of its \$4.6 billion goal, but doing so is reliant upon them achieving their aggressive December forecasts.

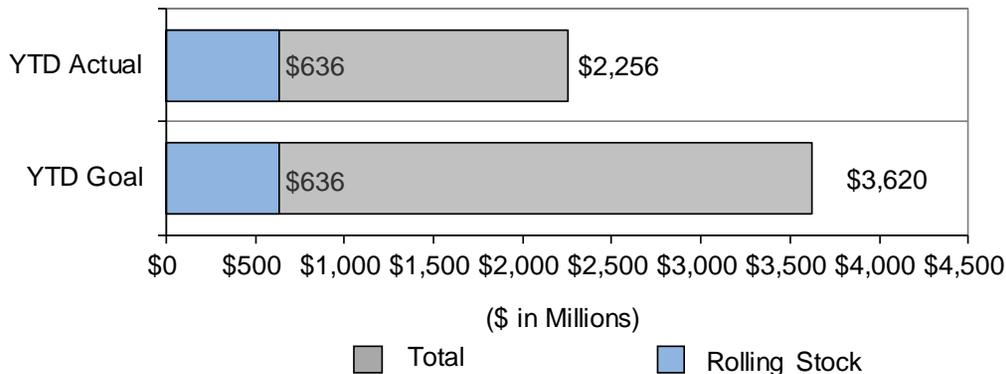
### Year-to-Date Major Completions



	Count	Percent	Change from Prior Month
<b>GREEN</b> = Completions made/forecast w within Goal	<b>22</b>	<b>61%</b>	↑ 1
<b>YELLOW</b> = Completions delayed beyond Goal (already achieved)	<b>5</b>	<b>14%</b>	-
<b>RED</b> = Completions delayed beyond Goal (not yet achieved)	<b>9</b>	<b>25%</b>	↑ 3
<b>Total</b>	<b>36</b>	<b>100%</b>	<b>↑ 4</b>

### Budget Analysis

2016 Annual Goal \$4,629 (\$ in millions)  
 2016 Forecast 94% of Annual Goal  
 Forecast left to Complete 48% (\$2,076)



### Year-to-Date Agency Breakdown

2016 Goals	Prior month variance		
	GREEN	YELLOW	RED
<b>New York City Transit</b>	8	2	4
<b>Long Island Rail Road</b>	4	1	
<b>Metro-North Railroad</b>	3		
<b>Bridges and Tunnels</b>	4	1	
<b>Capital Construction Company</b>	1	4	
<b>MTA Bus Company</b>	3	1	
<b>MTA Police Department</b>			

**Capital Projects – Major Completions – November 2016 – Schedule Variances**
**Actual Results Shaded**

Project	Completion	Goal	Forecast
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**9 All-Agency Red Completions (3 new this month)**
**NYCT**
Line Structures

Overcoating: Broadway Junction - New Lots Avenue / Canarsie	Construction Completion	Oct-16 \$27.1M	Dec-16 \$27.1M
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The project was delayed due to the late removal of shielding under a separate project at Atlantic Ave Station that prevented some work from being performed. Inclement weather, high temperature and humidity resulted in work stoppages on multiple occasions last quarter.

Stations

Replace 11 Hydraulic Elevators	Construction Completion	Aug-16 \$24.0M	Dec-16 \$24.1M
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The project was delayed due to extensive work on existing signal switches which delayed GOs until mid-November. Testing, termination, and inspection, commissioning and place in service of the elevators will follow. Project completion was previously delayed due to unforeseen field conditions.

ADA & Station Renewal at Ozone Park-Lefferts Blvd / Liberty	Construction Completion	Aug-16 \$23.9M	Dec-16 \$23.9M
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Project completion re-scheduled to December due to substantial changes in communication work associated with the ADA elevators and the Help Point Infrastructure.

SIR: Station Construction: Arthur Kill	Construction Completion	Aug-16 \$23.2M	Jan-17 \$24.0M
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Project completion delayed due to scope changes including the redesign of the electrical distribution room (EDR), exterior wall panel, ramp work, and various communications issues.

**MTA Bus**
Bus Company Projects

Security Upgrades - Far Rockaway & Baisley Park	Construction Completion	Sep-16 \$9.9M	Apr-17 \$9.9M
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Delay due to a pending AWO retroactive memo and negotiations for the remaining AWOs that are taking longer than anticipated.

**MTACC**
East Side Access

Plaza Substation & Structures	Construction Completion	Aug-16 \$250.2M	Jan-17 \$257.7M
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Substantial completion date has been delayed as a result of slow progress and additional work approved by the MTA Board in April 2016.

Project	Completion	Goal	Forecast
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**MTACC**
Second Avenue Subway

72nd St Station Finishes (New Item)	Construction Completion	Nov-16 \$301.2M	Dec-16 \$333.9M
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Budget increased to reflect SAS acceleration agreement. Delay recognizes the interaction between Systems and Station Finishes contracts.

86th St Station Finishes (New Item)	Construction Completion	Nov-16 \$237.2M	Dec-16 \$256.7M
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Budget increased to reflect acceleration agreement and additional contingency based on the analysis of current and future additional work order needs. Delay recognizes the interaction between Systems and Station Finishes contracts.

96th St Station Finishes (New Item)	Construction Completion	Nov-16 \$385.0M	Dec-16 \$415.4M
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Budget increased to reflect acceleration agreement and additional contingency based on the analysis of current and future additional work order needs. Delay recognizes the interaction between Systems and Station Finishes contracts.

**Capital Projects – Major Completions – November 2016 – Schedule Variances**
**Actual Results Shaded**

Project	Completion	Goal	Forecast
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**5 All-Agency Yellow Completions (0 new this month)**
**NYCT**
**Stations**

Renew Five Liberty Line Stations	Construction Completion	Apr-16 \$74.7M	May-16 (A) \$77.6M
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The project was completed in May with the contract delay due to inclement weather, loss of two GOs, and the repair of corroded steel that stopped work at 111th Street Station. Project cost increased due to additional TA Labor services required for additional steel work.

Brick Arch Repair: 168 Street & 181 Street / Broadway-7th Ave	Construction Completion	Jul-16 \$64.8M	Sep-16 (A) \$71.9M
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A budget modification being processed to cover additional costs for additional weekend GOs and support costs required during construction. Additional work and an extended contract duration by 10 months resulted in the previous increase. Additional AWOs and scope related to station medallions have resulted the original schedule delay and the recent delay is due to modifications related to Help Points at the 168th Street station.

**LIRR**
**Track**

Main Line Track Farmingdale-Ronkonkoma Phase I	Construction Completion	Jul-16 \$36.3M	Oct-16 (A) \$36.3M
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Delay related to contract change work that included wetland mitigation and an additional retaining wall on south side, which were completed in October (delayed from September due to weather conditions).

**B&T**
**Marine Parkway Bridge**

Rehabilitate Rockaway Point Blvd Overpass	Construction Completion	May-16 \$11.1M	Jun-16 (A) \$11.1M
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The project was completed in June. Although the overpass was opened for traffic at the end of May, substantial completion was previously delayed by one month due to outstanding work items including installing a concrete median barrier, curbs, drainage, and striping.

Project	Completion	Goal	Forecast
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**MTACC**
**East Side Access**

Manhattan South Structures	Construction Completion	Feb-16 \$249.8M	Jun-16 (A) \$249.8M
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The project was completed in June. Substantial completion was impacted by delays to underground tunnel work.

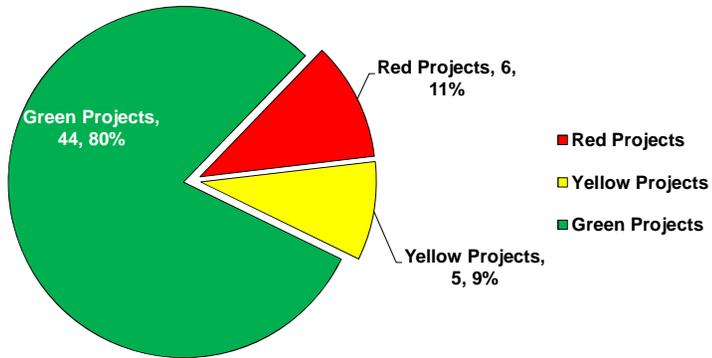
**Capital Projects – Major Completions – November 2016 – Budget\* Variances**
*Actual Results Shaded*
*\*for variances of more than \$5 million or 10%*

Project	Completion	Goal	Forecast
<b>2 All-Agency Budget Only Completions (0 new this month)</b>			
<b>NYCT</b>			
<i>Track</i>			
Mainline Track Replacement 2016 / 63rd St	Construction Completion	Jul-16 \$40.0M	Jul-16 (A) \$28.5M
Project cost decreased to reflect favorable bid and project savings.			
<b>B&amp;T</b>			
<i>Signals &amp; Communications</i>			
Miscellaneous Structural Rehabilitation	Construction Completion	May-16 \$22.0M	May-16 (A) \$19.1M
The project was completed in May 2016. Project cost decreased to reflect unused project contingency.			

3<sup>rd</sup> Quarter 2016 Traffic Light Report on MTA Core Capital Program Projects

A total of 260 Projects were Reviewed for the 3rd Quarter 2016

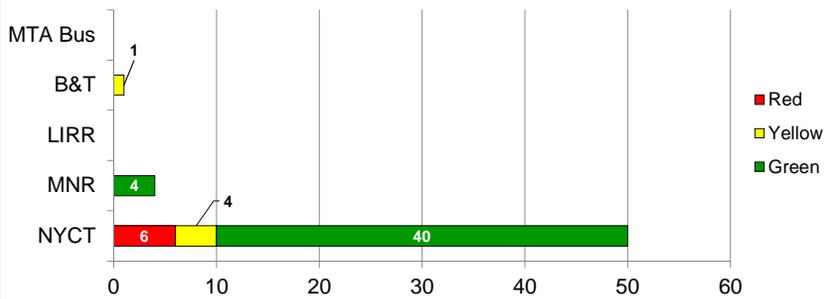
55 Projects in Design



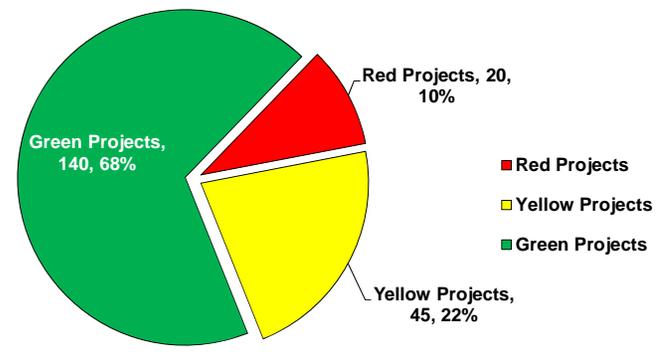
**Projects in Design:** 55 projects were reviewed in the design phase with 44 (80%) projects designated green, 5 (9%) yellow, and 6 (11%) were red. This is the same number of Red projects since the 2<sup>nd</sup> quarter 2016. Of the 6 red projects, 3 (50%) were red for a schedule variance and 3 for a cost variance. The schedule variances ranged from 6 to 18 months and were due in part to technical specification development and an increase in the scope of the design.

**Last Quarter:** 55 projects were reviewed in the design phase with 48 (87%) projects designated green, 1 (2%) yellow, and 6 (11%) were red.

55 Projects in Design



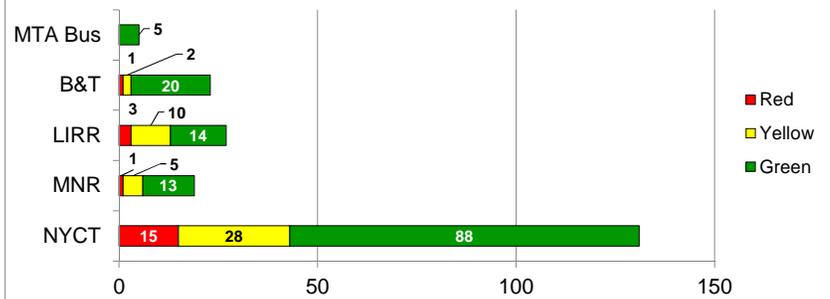
205 Projects in Construction



**Projects in Construction:** 205 projects were reviewed in the construction phase with 140 (68%) designated green, 45(22%) yellow and 20 (10%) red. This is a decrease of 5 red projects since the 2<sup>nd</sup> quarter 2016. Of the 20 red projects, 10 (50%) were red for a schedule variance, 6 for a cost variance, 1 for a contingency variance, 1 for both cost and schedule variances and 2 for both contingency and schedule variances. For the 10 projects designated red for schedule, the variances ranged from 3 to 21 months. The schedule variances were due in part to a delay in obtaining a crane certification, reprioritization of in-house workforce, unforeseen field conditions, lack of track access, and additional scope.

**Last Quarter:** 214 projects were reviewed in the construction phase with 156 (73%) designated green, 33 (15%) yellow and 25 (12%) red.

205 Projects in Construction



## Terms and Definitions

### 3<sup>rd</sup> Quarter 2016 Traffic Light Report on MTA Core Capital Program Projects

The following Terms and Definitions used to identify a project's Traffic Light color designation show variances from quarter to quarter and are based on three performance indicators: cost, contingency and schedule. A project is designated a "**red light project**" when one or more of the three indicators exceed a specified threshold. Agencies are required to produce follow-up one-page reports for all qualified red light projects. Included in these reports are one-page agency summaries (on pink paper stock) of issues associated with each project showing a **red** indicator and how the issues are being resolved. A project is designated a "**yellow light project**" after one or more performance indicators had triggered a red in a previous quarter. A yellow project may revert back to green after four consecutive quarters if the performance indicators have not worsened. A project is designated a "**green light project**" when no performance indicator has exceeded the Traffic Light Reports specified thresholds.

#### Traffic Light Report Project Terms and Definitions

##### Projects in Design: 55

-  Green: Indices less than 115% and index movement 15% or more
-  Red: Cost Index: An EAC increase of 15% (or index movement of 15% or more since last Traffic Light Report)
-  Red: Schedule Variance: An increase of 3 months or more to substantial completion since last Traffic Light Report
-  Yellow: Previously indicated as **red** with no new substantial change since last Traffic Light Report / A project in design that has been designated Yellow may be returned to Green when it has been in compliance with the three performance indicators for (four consecutive quarters) one year.

##### Projects in Construction: 205

-  Green: Indices less than 110% and index movement 10% or more. Other indices not exceeding those criteria specified in index formulas and criteria
-  Red: Cost or Contingency Index: An increase of 10% (or index movement of 10% or more since last Traffic Light Report)
-  Red: Schedule Variance: An increase of 3 months or more to substantial completion since last Traffic Light Report
-  Yellow: Previously indicated as **red** with no new substantial change since last Traffic Light Report / A project in construction that has been designated Yellow may be returned to Green when it has been in compliance with the three performance indicators for (four consecutive quarters) one year.

##### Report Index Formulas and Criteria:

- Cost Index = Total Project EAC / Current Approved Budget  
(Note: Current Budget is not Budget at Award)
- Schedule Variance = Number of months of change in schedule since last Traffic Light Report
- Contingency Index = % Contingency used / % 3rd Party Contract Completion (contingency used includes expended & pending AWOs). Triggered when project has reached 50% or higher. Threshold for NYCT is \$15M or more, other agencies \$5M or more.
- Excludes projects in CPOC's Risk-Based Monitoring Program listed at end of report



- |  |
|--|
| ➤ Only projects with budgets of \$5M or greater are included in the report |
| ➤ Projects in design must be at a 30% completion level or greater          |

**3rd Quarter 2016 Traffic Light Report  
Projects in Design and Construction**

▲ = Index increase: Trending indicates condition worsening since last quarterly report  
 ▼ = Index decrease: Trending indicates condition improving since last quarterly report  
 ■ = No Change since last quarterly report

Description	Capital Plan	Phase	Total Project EAC	% Phase Complete	Contingency Index	Cont. Trend	Cost Index	Cost Trend	Schedule Variance (Months)	Sched. Trend	Traffic Light
<b>NYCT - New York City Transit Program</b>											
PA/CIS B Division Furnish/Deliver CIS 89 Stations	05 - 09	Construction	\$8,400,000	25	.00	■	1.00	■	0	■	G
Communications-Based Train Control Equipment - 64 R160 Cars - Canarsie Line	05 - 09	Construction	\$71,175,087	98	1.02	■	.99	■	0	■	G
Public Address / Customer Information Screens - Phase 3	05 - 09	Construction	\$106,205,300	70	1.46	▲	.99	■	0	■	R
Stn Comm Room HVAC Ph 1	05 - 09	Construction	\$46,046,811	86	.54	▼	1.02	■	3	▲	R
Yard Fencing: 2 Locs (38th St, Linden)	05 - 09	Construction	\$16,969,100	80	.08	■	1.05	▲	2	▲	Y
Depot Equipment	05 - 09	Construction	\$5,084,637	64	.00	■	1.00	■	9	▲	Y
Priority Repairs: 3 Depots	05 - 09	Construction	\$19,512,541	100	.14	■	1.04	■	-3	▼	Y
Replacement of MetroCard Electronic Components	10 - 14	Construction	\$30,000,000	56	.00	■	1.00	■	0	■	G
Passenger Station Local Area Network at 188 Stations	10 - 14	Construction	\$73,499,981	28	.00	■	1.20	▼	0	■	Y
Replace 11 Hydraulic Elevators	10 - 14	Construction	\$26,185,198	81	.71	▼	1.00	■	1	▲	Y
Replace 7 Hydraulic Elevators	10 - 14	Construction	\$29,347,472	38	.12	▼	1.00	■	0	■	G
Ceiling Repair at 181 St and 168 St on the Broadway-7th Av Line	10 - 14	Construction	\$61,936,096	90	.67	▼	1.00	■	1	▲	Y
Renewal of Ozone Park - Lefferts Blvd Station on the Liberty Line	10 - 14	Construction	\$7,377,212	68	.68	▼	1.00	■	0	■	Y
Renewal of Avenue X Station on the Culver Line	10 - 14	Construction	\$19,929,156	58	.87	▼	1.04	▼	0	■	Y
Renewal of Avenue U Station on the Culver Line	10 - 14	Construction	\$16,712,003	24	.32	▼	1.00	■	0	■	G
Renewal of Avenue P Station on the Culver Line	10 - 14	Construction	\$15,515,750	29	.03	▼	1.02	■	0	■	G
Renewal of Bay Parkway Station on the Culver Line	10 - 14	Construction	\$14,266,645	32	1.04	▲	1.02	■	0	■	G
Renewal of 18 Avenue Station on the Culver Line	10 - 14	Construction	\$19,700,620	28	.26	▼	1.00	■	0	■	G
Renewal of Ditmas Avenue Station on the Culver Line	10 - 14	Construction	\$21,186,687	99	.38	▼	1.03	▼	0	■	Y
Renewal of Avenue I Station on the Culver Line	10 - 14	Construction	\$17,256,818	39	.95	▲	1.02	■	0	■	G
Renewal of Pennsylvania Avenue Station on the New Lots Line	10 - 14	Construction	\$15,167,800	62	.11	▼	1.11	▲	2	▲	R
Renewal of Rockaway Avenue Station on the New Lots Line	10 - 14	Construction	\$15,018,979	88	.47	■	1.11	▲	2	▲	R
Renewal of Saratoga Avenue Station on the New Lots Line	10 - 14	Construction	\$13,943,419	63	.08	▼	1.06	▲	2	▲	G

**3rd Quarter 2016 Traffic Light Report  
Projects in Design and Construction**

▲ = Index increase: Trending indicates condition worsening since last quarterly report  
 ▼ = Index decrease: Trending indicates condition improving since last quarterly report  
 ■ = No Change since last quarterly report

Description	Capital Plan	Phase	Total Project EAC	% Phase Complete	Contingency Index	Cont. Trend	Cost Index	Cost Trend	Schedule Variance (Months)	Sched. Trend	Traffic Light
<b>NYCT - New York City Transit Program</b>											
Renewal of Junius Street Station on the New Lots Line	10 - 14	Construction	\$13,637,260	0	.00	■	1.02	■	2	▲	G
Renewal of Sutter Avenue Station on the New Lots Line	10 - 14	Construction	\$13,532,116	0	.21	■	1.02	■	2	▲	G
Renewal of Van Siclen Avenue Station on the New Lots Line	10 - 14	Construction	\$16,085,986	86	.22	■	1.11	▼	2	▲	Y
Component Repairs at 4 Stations on the Jamaica Line	10 - 14	Construction	\$82,123,095	0	.00	■	.99	■	0	■	G
Component Repairs at 103 Street Station on the Lexington Line	10 - 14	Construction	\$15,242,076	100	.78	▼	1.00	■	0	■	Y
Component Repairs at 2 Stations on the Culver Line	10 - 14	Construction	\$21,379,043	24	.66	▼	1.01	■	0	■	G
Component Repairs at 2 Stations on the 4th Avenue Line	10 - 14	Construction	\$13,868,458	100	.91	▲	1.01	■	0	■	G
Component Repairs at 3 Stations on the Lexington Line	10 - 14	Construction	\$11,094,314	100	.62	▼	1.00	■	0	■	G
Component Repairs at 2 Stations on the Queens Boulevard Line	10 - 14	Construction	\$13,350,314	99	.06	▲	1.00	■	0	■	G
Ventilator Repairs at 5 Locations in Upper Manhattan and the Bronx	10 - 14	Construction	\$5,872,617	78	.00	■	1.00	■	12	▲	R
Component Repairs at Eastchester-Dyre Avenue Station on the Dyre Avenue Line	10 - 14	Construction	\$25,903,461	30	.00	■	1.00	■	0	■	G
Component Repairs at 5 Stations on the Canarsie Line	10 - 14	Construction	\$16,443,182	100	.08	■	1.00	■	2	▲	G
Ventilator Repairs at 8 Locations in Lower Manhattan	10 - 14	Construction	\$5,114,406	71	.00	■	1.00	■	15	▲	R
Reconstruction of Hard Rail Track Panels at 9 Stations on the Sea Beach Line	10 - 14	Construction	\$8,057,796	72	.00	■	1.00	■	5	▲	Y
Ventilator Repairs at 3 Locations in Southeast Brooklyn	10 - 14	Construction	\$6,454,000	66	.00	■	1.00	■	16	▲	R
Ventilator Repairs at 4 Locations in North Brooklyn	10 - 14	Construction	\$5,300,000	9	.00	■	1.06	■	21	▲	R
ADA Accessibility at 23 St Station on the Lexington Av Line	10 - 14	Construction	\$17,586,263	98	.93	▼	1.00	■	1	▲	Y
ADA Accessibility at Ozone Park-Lefferts Blvd Station on the Liberty Line	10 - 14	Construction	\$21,678,502	68	.40	■	1.00	■	0	■	Y
Access Improvements at Grand Central Station	10 - 14	Construction	\$23,343,265	48	.83	▼	1.00	■	0	■	G
2015 Mainline Track Replacement on the Queens Boulevard Line	10 - 14	Construction	\$49,328,099	85	.00	■	1.00	■	0	■	G
2015 Mainline Track Replacement on the 8th Avenue Line	10 - 14	Construction	\$18,626,232	90	.00	■	1.00	■	0	■	G

**3rd Quarter 2016 Traffic Light Report  
Projects in Design and Construction**

▲ = Index increase: Trending indicates condition worsening since last quarterly report  
 ▼ = Index decrease: Trending indicates condition improving since last quarterly report  
 ■ = No Change since last quarterly report

Description	Capital Plan	Phase	Total Project EAC	% Phase Complete	Contingency Index	Cont. Trend	Cost Index	Cost Trend	Schedule Variance (Months)	Sched. Trend	Traffic Light
<b>NYCT - New York City Transit Program</b>											
2015 Welded Rail Installation on the Queens Boulevard Line	10 - 14	Construction	\$11,719,109	96	.00	■	.99	▼	0	■	G
2015 Mainline Track Replacement on the Flushing Line	10 - 14	Construction	\$10,991,721	93	.00	■	1.00	■	0	■	G
2015 Mainline Track Replacement on the Broadway 7th Avenue Line	10 - 14	Construction	\$14,399,527	85	.00	■	1.00	■	4	▲	R
2015 Mainline Switch Replacement on the 6th Avenue Line	10 - 14	Construction	\$7,131,107	96	.00	■	.80	▼	0	■	G
Replace Tunnel Lighting from Roosevelt Av-36 St on the Queens Blvd Line	10 - 14	Construction	\$52,192,907	36	.00	■	1.00	■	0	■	G
New Vent Plant at 46 St on the Queens Blvd Line	10 - 14	Construction	\$82,338,068	69	.51	▲	1.00	■	0	■	Y
Replace Ventilation Controls at 22 Locations	10 - 14	Construction	\$16,199,489	45	.00	■	.99	■	0	■	G
Rehab of Pumps at 2 Locations in Manhattan	10 - 14	Construction	\$13,316,433	19	.94	▲	1.00	■	0	■	G
Demolish Abandoned Structures	10 - 14	Construction	\$15,149,820	42	.00	■	.99	■	0	■	G
Overcoat Painting from Broadway Junction-New Lots Ave on the Canarsie Line	10 - 14	Construction	\$28,127,850	73	.00	■	1.00	■	1	▲	G
Structural Repairs at 9 Avenue Station on the West End Line	10 - 14	Construction	\$22,703,522	87	.08	▼	1.00	■	2	▲	Y
Modernize Signal Interlockings at 71st Avenue and Union Turnpike on the Queens Boulevard Line	10 - 14	Construction	\$297,840,031	62	.81	▲	.99	■	0	■	Y
Modernize Signals and Interlockings on the Dyre Avenue Line	10 - 14	Construction	\$226,322,191	70	.62	▲	1.00	■	0	■	G
Modernize Signal Interlocking at Roosevelt Avenue on the Queens Boulevard Line	10 - 14	Construction	\$101,355,148	90	.42	■	1.00	■	0	■	G
Modernize Signal Interlocking at 34th Street on the 6th Avenue Line	10 - 14	Construction	\$179,994,319	40	.07	■	.99	■	0	■	G
Modernize Signal Interlocking at West 4th Street on the 6th Avenue Line	10 - 14	Construction	\$174,035,173	32	.12	■	.99	■	0	■	G
Automated Train Supervision: Hardware and Software Upgrade	10 - 14	Construction	\$5,900,000	90	.00	■	1.00	■	3	▲	Y
Replacement of Fiber Optic Cable - Phase 1	10 - 14	Construction	\$11,987,526	75	.00	■	1.15	▼	0	■	R

**3rd Quarter 2016 Traffic Light Report  
Projects in Design and Construction**

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Description	Capital Plan	Phase	Total Project EAC	% Phase Complete	Contingency Index	Cont. Trend	Cost Index	Cost Trend	Schedule Variance (Months)	Sched. Trend	Traffic Light
<b>NYCT - New York City Transit Program</b>											
Public Address/Customer Info Screen Systems	10 - 14	Construction	\$64,342,713	59	.00	■	.97	■	0	■	Y
Upgrade/Expansion of Communication Rooms - Phase 1	10 - 14	Construction	\$15,835,725	7	.00	■	.91	■	0	■	G
Replacement of Subway Radio Portable Units	10 - 14	Construction	\$6,719,210	60	.00	■	1.00	■	0	■	Y
Upgrade Ventilation Systems in 19 Communication Rooms	10 - 14	Construction	\$11,223,891	42	7.91	▼	1.03	■	0	■	G
Passenger Station Local Area Network at 30 Stations	10 - 14	Construction	\$26,514,729	93	.76	■	1.00	■	0	■	Y
Help Point at 93 Stations	10 - 14	Construction	\$79,003,652	67	.00	■	1.03	■	0	■	Y
Integrated Service Information & Management B-Division, Module 1	10 - 14	Construction	\$59,160,238	11	.95	▲	1.00	■	0	■	G
Integrated Service Information & Management B-Division, Module 2	10 - 14	Construction	\$67,798,895	0	.00	■	.97	▼	0	■	G
Install Help Point Systems at 62 Stations	10 - 14	Construction	\$27,842,545	75	.00	■	1.00	■	0	■	Y
Repair/Replace Underground Substation Hatchways - Phase 3	10 - 14	Construction	\$11,182,822	28	.00	■	.99	■	0	■	G
Yard Lighting at Jerome and Pelham Yards	10 - 14	Construction	\$19,912,432	97	.43	▼	1.32	■	0	■	Y
Rehab 3 Car Washers at 3 Yards	10 - 14	Construction	\$17,068,520	60	.25	▲	.98	■	0	■	G
2015 Welded Rail Installation on the 8th Avenue Line	10 - 14	Construction	\$26,497,289	94	.00	■	1.00	■	0	■	G
2015 Mainline Track Replacement on the Brighton Line	10 - 14	Construction	\$20,443,517	97	.00	■	1.92	■	0	■	G
2015 Mainline Track Replacement on the West End Line	10 - 14	Construction	\$14,200,000	93	.00	■	2.93	▲	0	■	R
Replacement of Bus Radio System	10 - 14	Construction	\$195,241,767	6	.12	▼	.99	■	0	■	G
Manhattanville Comprehensive Facade Repairs	10 - 14	Construction	\$21,898,845	30	.00	■	1.00	■	3	▲	R
New Bus Command Center Building	10 - 14	Construction	\$52,333,972	20	.59	▼	1.00	■	0	■	G
Purchase 91 Non-Revenue Vehicles	10 - 14	Construction	\$15,785,653	100	.00	■	1.00	■	-3	▼	G
Purchase 101 Non-Revenue Vehicles	10 - 14	Construction	\$11,222,176	97	.00	■	1.00	■	6	▲	R
Purchase Vacuum Trains	10 - 14	Construction	\$34,704,131	23	.00	■	.99	■	0	■	G
NYCT-Wide Storage Area Network/Disaster Recovery	10 - 14	Construction	\$20,825,478	81	.00	■	1.02	■	0	■	G
Wide Area Network/Local Area Network Equipment Replacement Phase 1	10 - 14	Construction	\$9,609,800	80	.00	■	1.00	■	1	▲	Y

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<b>NYCT - New York City Transit Program</b>											
Fire Sprinkler/Alarm Systems at 11 Employee Facilities	10 - 14	Construction	\$26,558,692	95	.88	■	1.00	■	0	■	G
Replace Fire Alarm at 207 St Overhaul Shop	10 - 14	Construction	\$12,783,298	20	1.35	▲	.99	■	0	■	G
Groundwater, Soil Remediation	10 - 14	Construction	\$6,300,592	73	.66	■	.96	▲	0	■	G
Rehabilitation of Employee Facility at 207th Street on the 8th Av Line	10 - 14	Construction	\$6,650,000	98	.00	■	1.00	■	0	■	Y
Livingston Plaza Repairs	10 - 14	Construction	\$27,257,503	43	-.07	■	1.00	■	0	■	G
Facility Roof Repair/Replacement Phase 4	10 - 14	Construction	\$16,405,404	31	.97	▼	1.00	■	0	■	G
Design of New "B" Division Railcar	10 - 14	Design	\$12,367,058	50	.00	■	.99	■	0	■	Y
ADA Accessibility at 57 St Station on the Broadway Line - Phase 2	10 - 14	Design	\$66,800,000	55	.00	■	.00	■	0	■	G
Purchase 138 Standard CNG Buses	15 - 19	Construction	\$84,800,000	21	.00	■	.99	▲	0	■	G
Station Signage Improvements	15 - 19	Construction	\$10,775,787	3	.00	■	1.00	■	0	■	G
2015 Water Condition Remedy	15 - 19	Construction	\$8,940,465	13	.00	■	1.01	■	0	■	G
2015 Mainline Track Replacement	15 - 19	Construction	\$1,730,000	0	.00	■	.01	▼	0	■	G
2016 Mainline Track Replacement	15 - 19	Construction	\$45,104,305	14	.00	■	.43	▼	0	■	G
2016 Continuous Welded Rail	15 - 19	Construction	\$25,758,605	80	.00	■	.37	■	-2	▼	G
2016 Track Force Account	15 - 19	Construction	\$35,000,000	0	.00	■	1.00	▲	0	■	G
2015 Mainline Track Replacement QBL	15 - 19	Construction	\$29,266,714	85	.00	■	1.00	■	0	■	G
2015 Mainline Track Replacement FLS	15 - 19	Construction	\$17,084,364	93	.00	■	1.07	▲	0	■	G
2015 Mainline Track Replacement 8AV	15 - 19	Construction	\$39,761,430	90	.00	■	.95	■	0	■	G
2015 Mainline Track Replacement JER	15 - 19	Construction	\$5,381,546	0	.00	■	1.00	■	0	■	G
2015 Continuous Welded Rail 8AV	15 - 19	Construction	\$18,018,157	94	.00	■	1.00	■	0	■	G
2016 Mainline Track Replacement BRT	15 - 19	Construction	\$10,807,380	88	.00	■	.96	▼	0	■	G
2016 Mainline Track Replacement JAM	15 - 19	Construction	\$18,692,042	45	.00	■	2.00	■	0	■	G
2016 Mainline Track Replacement QBL	15 - 19	Construction	\$44,784,630	19	.00	■	2.43	▼	0	■	G

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<b>NYCT - New York City Transit Program</b>											
2016 Mainline Track Replacement DYR	15 - 19	Construction	\$12,456,949	10	.00	■	3.26	▼	0	■	G
2016 Continuous Welded Rail 8AV	15 - 19	Construction	\$60,473,711	60	.00	■	2.89	■	0	■	G
2016 Mainline Track Replacement PEL	15 - 19	Construction	\$7,074,125	92	.00	■	3.94	■	0	■	G
2016 Mainline Track Replacement WPR	15 - 19	Construction	\$17,338,379	70	.00	■	2.73	▲	0	■	R
2016 Mainline Track Replacement 8AV	15 - 19	Construction	\$52,775,539	10	.00	■	.94	▲	0	■	G
2015 Mainline Switch Replacement	15 - 19	Construction	\$25,904,897	0	.00	■	1.00	■	0	■	G
2016 Mainline Switch Replacement	15 - 19	Construction	\$9,458,668	61	.00	■	.33	■	0	■	G
2015 Mainline Switch Replacement BW7	15 - 19	Construction	\$10,308,723	90	.00	■	1.10	▲	0	■	G
2015 Mainline Switch Replacement DYR	15 - 19	Construction	\$7,557,188	80	.00	■	2.00	■	0	■	Y
2016 Mainline Switch Replacement JAM	15 - 19	Construction	\$5,309,423	88	.00	■	1.00	■	0	■	G
2016 Mainline Switch Replacement 6AV	15 - 19	Construction	\$11,816,646	62	.00	■	1.68	▲	0	■	R
2016 Mainline Switch Replacement QBL	15 - 19	Construction	\$18,435,225	28	.00	■	2.83	■	0	■	G
Tun Lighting: Various Locations	15 - 19	Construction	\$38,593,188	65	.00	■	1.25	■	1	▲	G
Signal Control Line Modifications, Ph6	15 - 19	Construction	\$33,011,628	26	.00	■	1.00	■	0	■	G
AC to DC Line Relay Upgrade Ph2 - FUL	15 - 19	Construction	\$13,545,979	74	.00	■	1.00	■	0	■	G
Copper Cable Upgrade/Replacement Ph4	15 - 19	Construction	\$1,294,525	20	.00	■	.10	▼	0	■	G
Help Point: 28 Stations (I/H)	15 - 19	Construction	\$17,272,600	0	.00	■	1.00	■	0	■	G
Help Points: 39 Stations In House	15 - 19	Construction	\$22,479,000	70	.00	■	1.00	■	0	■	G
Help Points: 49 Stations (TW)	15 - 19	Construction	\$21,307,000	65	.00	■	1.00	■	0	■	G
Help Points: Material Purchases	15 - 19	Construction	\$14,235,500	0	.00	■	1.00	■	0	■	G
Enterprise Asset Management (EAM)	15 - 19	Construction	\$41,156,000	0	.00	■	1.00	■	0	■	G
Emp Fac Component Repairs: 10 Locs / Manhattan **	15 - 19	Construction	\$10,245,942	80	.00	■	1.05	▲	0	■	G
Replace 11 Hydraulic Elevators / Various **	15 - 19	Design	\$41,397,106	40	.00	■	1.00	▲	1	▲	G
Replace 12 Traction Elevators BW7 **	15 - 19	Design	\$45,821,778	40	.00	■	1.02	■	1	▲	G

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<b>NYCT - New York City Transit Program</b>											
Replace 8 Traction Elevators / Various **	15 - 19	Design	\$28,546,451	40	.00	■	1.02	■	0	■	Y
Replace 2 Escalators: Grand Central-42 St LEX **	15 - 19	Design	\$13,779,352	35	.00	■	1.03	■	2	▲	G
Escalator Relocation: Jay St-MetroTech FUL	15 - 19	Design	\$16,000,000	40	.00	■	1.06	▲	0	■	G
Water Remediation - Renewal: Borough Hall LEX	15 - 19	Design	\$36,377,194	85	.00	■	.83	■	2	▲	Y
Renewal: 138 St-Grand Concourse JER	15 - 19	Design	\$22,303,892	40	.00	■	1.01	■	0	■	G
Renewal: Astoria Blvd AST	15 - 19	Design	\$18,016,265	40	.00	■	1.00	■	1	▲	G
Elevated Street Stairs: 2 Locs BW7 [SBDP] **	15 - 19	Design	\$5,317,977	95	.00	■	1.32	■	1	▲	Y
ADA: Astoria Blvd AST	15 - 19	Design	\$34,967,226	40	.00	■	1.00	■	1	▲	G
ADA: Bedford Pk Blvd BXC	15 - 19	Design	\$28,351,577	60	.00	■	.93	■	0	■	G
ADA: 86 St 4AV	15 - 19	Design	\$26,354,736	65	.00	■	.91	■	0	■	G
ADA: Gun Hill Road DYR	15 - 19	Design	\$41,339,553	85	.00	■	.99	■	1	▲	G
ADA: Times Square Complex, Ph 3 - Shuttle	15 - 19	Design	\$240,987,683	40	.00	■	.98	■	0	■	G
ADA: 59 St 4 AV	15 - 19	Design	\$42,052,269	30	.00	■	.86	■	0	■	G
ADA: Rockaway Pkwy CNR	15 - 19	Design	\$10,749,454	65	.00	■	1.76	■	2	▲	R
Station Entrance and Structural Work: 8 Av / SEA	15 - 19	Design	\$14,202,098	50	.00	■	.94	▲	0	■	G
Reconstruction: Times Sq Complex, Ph3 - Shuttle	15 - 19	Design	\$30,000,000	40	.00	■	1.00	■	0	■	G
2017 Mainline Track Replacement	15 - 19	Design	\$193,041,078	32	.00	■	1.00	■	0	■	G
2017 Mainline Switch Replacement	15 - 19	Design	\$58,897,338	32	.00	■	1.00	■	0	■	G
Replace Vent Plant Motor Control Sys Var Locs **	15 - 19	Design	\$13,790,144	85	.00	■	1.00	■	0	■	G
Replace Supervisory Vent Controls - Var Locs **	15 - 19	Design	\$35,226,078	55	.00	■	1.00	▲	0	■	G
Rehab Forsyth St Vent Plant **	15 - 19	Design	\$101,945,212	45	.00	■	1.01	■	0	■	G
Structures: Livonia Yd Overpass & Ret Wall	15 - 19	Design	\$14,256,097	40	.00	■	.90	■	0	■	G
Overcoat: ENY Leads & Loops	15 - 19	Design	\$24,500,354	40	.00	■	.87	■	0	■	G
Signal Room Fire Suppression, Phase 2	15 - 19	Design	\$15,730,293	40	.00	■	1.00	■	2	▲	G

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<b>NYCT - New York City Transit Program</b>											
Substation Renewal: Av Z CUL **	15 - 19	Design	\$34,667,555	35	.00	■	1.00	■	0	■	G
Repl 25Hz Freq Converters at 10 Substations **	15 - 19	Design	\$24,900,470	50	.00	■	1.00	■	0	■	G
Rehab Ducts: Stanton St. Substation	15 - 19	Design	\$12,445,469	30	.00	■	.88	■	0	■	G
DCE Shop Compnts Ph1: 180 St, CI, PEL, PEL Dsl **	15 - 19	Design	\$25,148,418	60	.00	■	.97	■	1	▲	G
207 St Maint. and OH Shop Roof & Component Repl	15 - 19	Design	\$60,000,000	30	.00	■	1.00	■	0	■	G
Upgrade Central Electronics Shop: Woodside	15 - 19	Design	\$15,022,268	50	.00	■	1.01	■	0	■	G
Heavy Shop Equipment	15 - 19	Design	\$10,000,000	40	.00	■	1.00	■	0	■	G
Gun Hill Depot Component Rehab	15 - 19	Design	\$16,265,791	80	.00	■	1.35	▲	0	■	R
Queens Village Depot Component Rehab [SBDP] **	15 - 19	Design	\$35,675,871	40	.00	■	1.00	■	0	■	G
Casey Stengel Depot Component Rehab [SBDP] **	15 - 19	Design	\$9,928,000	45	.00	■	.47	■	0	■	G
Zerega CMF Component Rehab [SBDP]	15 - 19	Design	\$10,000,000	60	.00	■	1.00	■	1	▲	G
Storage Tank Replacement **	15 - 19	Design	\$25,644,025	60	.00	■	1.14	▲	0	■	R
Kingsbridge Shoreline Upgrade [SBDP] DES	15 - 19	Design	\$5,463,633	75	.00	■	1.00	▲	1	▲	G
Elevator Upgrades: JG,GH,MTV,CS,ENY **	15 - 19	Design	\$16,353,519	75	.00	■	1.01	■	0	■	G
Purchase 27 Refuse Flats	15 - 19	Design	\$24,854,608	93	.00	■	1.00	■	6	▲	R
Purchase 12 3-Ton Crane Cars **	15 - 19	Design	\$28,780,641	40	.00	■	1.00	■	18	▲	R
Purchase Locomotives **	15 - 19	Design	\$102,472,053	30	.00	■	1.00	■	11	▲	R
Fire Alarm System Replacement - 3 Locs	15 - 19	Design	\$20,999,822	50	.00	■	.79	▼	0	■	G
Livingston Plz Electrical / Mechanical Sys Imps	15 - 19	Design	\$56,484,166	70	.00	■	1.00	■	0	■	G
Rehabilitation of St. George Interlocking	10 - 14	Construction	\$14,309,523	75	.00	■	1.00	■	0	■	G
Construction of New Power Substation: Prince's Bay	10 - 14	Construction	\$25,131,825	65	.11	▲	.99	■	0	■	G
Construction of New Station: Arthur Kill	10 - 14	Construction	\$23,965,687	96	1.03	▼	1.02	■	2	▲	Y
SIR: Replace Car Fleet	15 - 19	Design	\$256,303,812	50	.00	■	1.10	▲	0	■	G
New Power Substation: New Dorp	15 - 19	Design	\$28,905,500	89	.00	■	1.00	■	1	▲	G

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<b>NYCT - New York City Transit Program</b>											
New Power Substation: Clifton	15 - 19	Design	\$25,498,800	89	.00	■	1.00	■	1	▲	G
<b>LIRR - Long Island Rail Road Program</b>											
New Elevators - Flushing - Main St	05 - 09	Construction	\$24,619,074	11	.00	■	1.00	■	0	■	G
Main Line Corridor Improvements -Hicksville North Siding	05 - 09	Construction	\$51,237,723	1	.00	■	1.01	■	0	■	G
Main Line Corridor Improvements -Hicksville Station Improvements	05 - 09	Construction	\$68,076,037	1	.00	■	.96	■	0	■	G
Wantagh Station Platform Replacement	10 - 14	Construction	\$22,467,816	16	.00	▼	1.00	▲	-4	▼	G
Escalator Replacement Program	10 - 14	Construction	\$11,174,245	69	.00	▼	1.00	■	0	■	Y
Construction equipment purchase used for track program	10 - 14	Construction	\$7,000,000	96	.00	■	1.00	■	0	■	Y
Atlantic Branch Half tie replacement	10 - 14	Construction	\$29,400,000	98	.95	▲	1.00	■	-3	▼	Y
East River Tunnel Track Replacement	10 - 14	Construction	\$43,601,000	75	.00	■	1.00	■	11	▲	R
Extend Great Neck Pocket Track	10 - 14	Construction	\$25,400,000	53	.00	▼	1.00	■	0	■	G
Bridge Rehabilitation Program	10 - 14	Construction	\$24,600,000	94	.00	■	1.00	■	0	■	Y
Colonial Road Highway Bridge Replacement	10 - 14	Construction	\$19,800,000	90	.00	▼	1.00	■	-28	▼	G
150th Street - Jamaica Bridge Rehabilitation	10 - 14	Construction	\$24,824,404	91	.00	■	1.00	■	0	■	Y
East River Tunnel Fire and Life Safety Improvements	10 - 14	Construction	\$16,600,000	0	.00	■	1.00	■	0	■	G
Private Branch Exchange / Wayside Phone systems replacement - Phase 1	10 - 14	Construction	\$10,500,000	92	.00	■	1.00	■	-3	▼	G
Radio Coverage Improvements	10 - 14	Construction	\$10,300,000	89	.00	■	1.00	■	0	■	Y
Speonk to Montauk Signalization	10 - 14	Construction	\$73,000,000	72	1.60	▲	1.00	■	8	▲	R
Centralized Train Control	10 - 14	Construction	\$12,940,000	88	.87	▲	1.00	■	-3	▼	Y
Employee Facilities Renewals	10 - 14	Construction	\$10,454,658	95	.00	■	.99	■	3	▲	R
Replacement of Port Washington Substation	10 - 14	Construction	\$21,267,440	37	.00	■	.94	▼	2	▲	G
Replacement of Richmond Hill Substation	10 - 14	Construction	\$12,017,791	3	.00	■	1.00	▼	0	■	Y
2016 Annual Track Program	15 - 19	Construction	\$60,000,000	75	.00	■	1.00	■	0	■	G
Retaining Walls / Right of Way Projects	15 - 19	Construction	\$12,000,000	7	.00	■	1.00	▼	0	■	Y

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<b>LIRR - Long Island Rail Road Program</b>											
Comm. Pole Line	15 - 19	Construction	\$7,700,000	14	.00	■	1.00	▼	0	■	G
Signal Normal Replacement Program	15 - 19	Construction	\$40,000,000	5	.00	■	1.00	■	0	■	G
3rd Rail - Protection Board	15 - 19	Construction	\$8,800,000	5	.00	■	1.00	▼	0	■	Y
3rd Rail - Composite Rail	15 - 19	Construction	\$12,000,000	3	.00	■	1.00	▼	0	■	G
EAM Reserve	15 - 19	Construction	\$8,000,000	0	.00	■	1.00	■	0	■	G
<b>MNR - Metro-North Railroad Program</b>											
Signal System Replacement	05 - 09	Construction	\$34,388,272	97	.49	■	.98	■	-4	▼	G
HRLB Replace Breaker Houses	05 - 09	Construction	\$16,677,099	98	1.02	■	.99	■	0	■	Y
Grand Central Trainshed and Park Avenue Tunnel Structure Rehabilitation	10 - 14	Construction	\$23,966,521	89	.35	■	.96	■	0	■	G
Grand Central Terminal Leaks Remediation	10 - 14	Construction	\$17,552,322	64	.84	▼	.94	■	0	■	G
Grand Central Terminal Elevator Rehabilitation - Phase 4	10 - 14	Construction	\$8,944,812	69	.78	■	.92	■	2	▲	Y
Grand Central Terminal Utility System Improvements	10 - 14	Construction	\$31,575,428	17	.00	■	.94	■	0	■	G
Station Building Improvements and Net Lease Efforts at Select Locations	10 - 14	Construction	\$8,402,713	50	3.05	▲	.97	■	0	■	G
Mainline/High Speed Turnout Replacement	10 - 14	Construction	\$58,804,193	62	.00	■	.96	■	1	▲	G
Drainage and Undercutting Improvements Along the Right-of-Way	10 - 14	Construction	\$11,689,312	100	.00	■	1.14	▲	0	■	G
Harlem River Lift Bridge Cable Replacement	10 - 14	Construction	\$10,220,515	100	.67	■	.97	■	0	■	Y
Upgrade West of Hudson Signal System	10 - 14	Construction	\$64,418,723	26	.00	■	.95	■	0	■	G
Replace and Upgrade Substation Bridge 23	10 - 14	Construction	\$41,770,040	83	.00	■	1.00	■	0	■	Y
Harlem and Hudson Line Power Improvements	10 - 14	Construction	\$41,727,728	39	7.69	▲	1.23	▲	19	▲	R
Replacement of Harlem River Lift Bridge Breaker Houses/Electric Controls	10 - 14	Construction	\$14,241,175	100	.37	■	.95	■	0	■	Y
Customer Communication/Connectivity Improvements to provide Real-time Information at East of Hudson Stations	10 - 14	Design	\$36,522,847	75	.00	■	.91	▼	0	■	G

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Description	Capital Plan	Phase	Total Project EAC	% Phase Complete	Contingency Index	Cont. Trend	Cost Index	Cost Trend	Schedule Variance (Months)	Sched. Trend	Traffic Light
<b>MNR - Metro-North Railroad Program</b>											
Rock Slope Remediation -Priority Sites Along the Right-of-Way	10 - 14	Design	\$7,511,891	100	.00	■	.99	■	0	■	G
Repair/Replacement of Undergrade Bridges	10 - 14	Design	\$23,585,567	80	.00	■	.94	■	0	■	G
Hudson & Harlem Line Wayside Communications and Signals Systems Design	10 - 14	Design	\$7,589,195	62	.00	■	.98	■	2	▲	G
GCT Fire Protection	15 - 19	Construction	\$11,445,386	17	.00	■	1.00	■	0	■	G
Turnouts - Mainline/High Speed **	15 - 19	Construction	\$51,473,594	13	.00	■	1.00	■	0	■	G
GCT Turnouts/Switch Renewal	15 - 19	Construction	\$24,446,135	40	.00	■	.98	■	0	■	G
Systemwide Drainage	15 - 19	Construction	\$10,083,200	54	1.16	■	1.00	▲	0	■	G
Replace Timbers - Undergrade Bridges	15 - 19	Construction	\$5,000,000	0	.00	■	1.00	▲	0	■	G
<b>B&amp;T - Bridges and Tunnels Program</b>											
Rehabilitation of tunnel walls Roadway drainage and fire line repair at Brooklyn-Battery Tunnel	10 - 14	Construction	\$63,039,345	40	.20	■	.96	■	0	■	G
This project will construct miscellaneous structural steel repairs at various locations on the Marine Parkway Bridge.	10 - 14	Construction	\$29,237,709	18	.00	■	1.04	■	0	■	G
Structural Rehabilitation of the Entrance and Exit Plazas - Queens Midtown Tunnel	10 - 14	Construction	\$15,905,009	27	.00	■	.96	■	-17	▼	G
Rehabilitation of Tunnel Walls, Ceiling Repair and Leak Control - Queens Midtown Tunnel	10 - 14	Construction	\$60,139,366	27	7.23	▲	.95	■	-17	▼	G
Miscellaneous steel and concrete rehabilitation - Manhattan approach ramps of the Robert F Kennedy Bridge	10 - 14	Construction	\$107,405,676	59	.08	■	.95	■	0	■	G
Miscellaneous structural repair - Robert F Kennedy Bridge	10 - 14	Construction	\$10,856,470	93	.72	▼	.97	■	0	■	G
Steel repairs, concrete rehabilitation and repair/rehabilitation of drainage systems - Verrazano-Narrows Bridge	10 - 14	Construction	\$11,742,847	82	.00	▲	.86	■	0	■	Y
Replacement of Brooklyn Plaza structural slab - Brooklyn-Battery Tunnel	10 - 14	Construction	\$18,176,720	7	.00	■	.97	■	0	■	G

**3rd Quarter 2016 Traffic Light Report  
Projects in Design and Construction**

▲ = Index increase: Trending indicates condition worsening since last quarterly report  
 ▼ = Index decrease: Trending indicates condition improving since last quarterly report  
 ■ = No Change since last quarterly report

Description	Capital Plan	Phase	Total Project EAC	% Phase Complete	Contingency Index	Cont. Trend	Cost Index	Cost Trend	Schedule Variance (Months)	Sched. Trend	Traffic Light
<b>B&amp;T - Bridges and Tunnels Program</b>											
Replacement of the Upper and Lower Level Toll Plaza and Southbound Approach - Henry Hudson Bridge	10 - 14	Construction	\$49,025,101	90	1.16	▲	.97	■	4	▲	R
Interim Deck Repairs - Manhattan Toll Plaza Deck - Robert F Kennedy Bridge	10 - 14	Construction	\$45,532,688	65	1.09	▲	.97	■	1	▲	Y
Rehabilitation of the Programmable Logic Controller and electrical and mechanical systems of the Marine Parkway Bridge Lift Span	10 - 14	Construction	\$9,886,769	14	.00	■	.97	▲	0	■	G
Rehabilitation of the Programmable Logic Controller and electrical and mechanical systems of the Marine Parkway Bridge Lift Span	10 - 14	Construction	\$37,142,191	18	2.31	▲	.95	▼	0	■	G
Tunnel Ventilation Building Electrical Upgrade Replace electrical switchgear and fan motor control Equipment - Queens Midtown Tunnel	10 - 14	Construction	\$55,136,973	63	.47	▲	.98	■	0	■	G
Zone and Spot Paint Rockaway Point Boulevard Bridge, Jacob Riis Pedestrian Bridge, and Marine Parkway Bridge	10 - 14	Construction	\$26,271,467	18	.00	■	.95	■	0	■	G
Paint steel members, toll plaza deck and approach ramps at Robert F Kennedy Bridge	10 - 14	Construction	\$24,109,957	21	1.28	▼	.96	■	0	■	G
Paint Brooklyn and Staten Island lower level ramps at Verrazano Narrows Bridge	10 - 14	Construction	\$15,944,641	82	.29	■	.93	■	0	■	G
Paint - Upper Level Superstructure - Verrazano-Narrows Bridge	10 - 14	Construction	\$31,440,627	80	.01	■	.95	■	0	■	G
Phase A of the suspended span deck replacement - Throgs Neck Bridge - Utility relocation and prototype construction	10 - 14	Design	\$21,958,167	74	.00	■	.99	▲	0	■	Y
Miscellaneous Structural Rehabilitation: Steel repairs and Removal of Tuned Mass Damper - Bronx-Whitestone Bridge	15 - 19	Construction	\$27,529,067	23	.00	■	.97	■	0	■	G
Monitoring, Inspection and Testing of the Bronx-Whitestone Bridge's Main Cable and Cable Wires	15 - 19	Construction	\$15,635,143	23	.00	■	.97	■	0	■	G

**3rd Quarter 2016 Traffic Light Report  
Projects in Design and Construction**

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Description	Capital Plan	Phase	Total Project EAC	% Phase Complete	Contingency Index	Cont. Trend	Cost Index	Cost Trend	Schedule Variance (Months)	Sched. Trend	Traffic Light
<b>B&amp;T - Bridges and Tunnels Program</b>											
Installation of Rotating Prism Signs (RPS) at the Bronx-Whitestone, Throgs Neck and Verrazano-Narrows Bridges	15 - 19	Construction	\$13,071,773	2	.00	■	.96	■	0	■	
Construction of an Anchorage Dehumidification System - Throgs Neck Bridge	15 - 19	Construction	\$44,986,006	6	.00	■	1.03	▲	0	■	
Painting of the Tower Interior Base Cells and Struts - Bronx-Whitestone Bridge	15 - 19	Construction	\$31,596,972	23	.00	■	.95	▲	0	■	
Painting of the Anchorages Interior - Throgs Neck Bridge	15 - 19	Construction	\$7,844,820	6	.00	■	.95	■	0	■	
<b>MTA Bus Program</b>											
Elec Upgrd/Emer Gens 6 Depots	05 - 09	Construction	\$14,597,817	91	.12	■	1.00	■	0	■	
Purchase 75 Articulated Buses	10 - 14	Construction	\$61,567,920	100	1.08	▲	1.00	■	-5	▼	
New Bus Command Center Building	10 - 14	Construction	\$17,214,991	20	2.16	▲	1.00	■	0	■	
Replacement of Bus Radio System	10 - 14	Construction	\$27,920,675	2	.00	■	1.00	■	0	■	
Bus Radio System - MTA Bus Share	15 - 19	Construction	\$34,500,000	0	.00	■	1.00	■	0	■	

<b>MTA Agency: New York City Transit</b>	<b>Status as of September 30, 2016</b>
<b>Project Name: Public Address / Customer Information Screens - Phase 3</b>	<b>Current Budget: \$106.7M</b>
	<b>Project EAC: \$106.2M</b>
	<b>Substantial Completion Date at Award: Apr 2017</b>
<b>Project No: T5080615</b>	<b>Current Substantial Completion Date: Oct 2017</b>
<b>Project Phase: Construction</b>	<b>Phase Complete: 70%</b>

<b>Project Description</b>
<p>This project involves the deployment of an integrated Public Address (PA) and Customer Information Screen (CIS) system at 89 stations that lack a public address system. The systems to be installed will provide audio and visual text messaging capabilities and will be connected to the NYCT Synchronous Optical Networking/Asynchronous Transfer Mode (SONET/ATM) communication network.</p>
<b>Problem Since Last Quarterly Report</b>
<b>Index Trigger(s): Contingency</b>
<p><b>Contingency:</b> During the Third Quarter 2016, the rate of contingency expenditures exceeded the overall project percent completion, causing a contingency index of 1.46. During this quarter, Additional Work Order (AWO) #1 was approved and awarded in the amount of \$735,000. This Additional Work Order pertained to PA Cabinet Enhancements for 106 cabinets that were not available during the design phase. The work for this AWO includes replacing cabinet roof tops, replacing cable management system, adding module blocks and test points, adding power management system and adding support to improve cabinet stiffness and the overall cabinet integrity.</p>
<b>What is Being Done</b>
<p><b>Contingency:</b> A Budget Modification to increase the contingency budget is currently in circulation for approval.</p>
<b>IEC Comment</b>
<p><b>Budget and Schedule Performance:</b> The IEC substantially agrees with the material presented in this report, including the stated problems and actions taken by the Agency.</p>
<p><b>All Agency Contractor Evaluation:</b> The IEC has reviewed the project performance for consistency with the Agency's ACE evaluation of the overall contractor's performance rating for this presentation.</p>

<b>MTA Agency: New York City Transit</b>	<b>Status as of September 30, 2016</b>
<b>Project Name: Station Communication Rooms HVAC: Phase 1</b>	<b>Current Budget: \$45.1M</b>
	<b>Project EAC: \$46.0M</b>
	<b>Substantial Completion Date at Award: Dec 2015</b>
<b>Project No: T5080616</b>	<b>Current Substantial Completion Date: Dec 2016</b>
<b>Project Phase: Construction</b>	<b>Phase Complete: 86%</b>

<b>Project Description</b>
<p>This project includes furnishing and installing Heating, Ventilation, and Air Conditioning (HVAC) equipment in various communications rooms in the Boroughs of Brooklyn, Queens, Manhattan and the Bronx. At certain locations, additional space is required to house the HVAC equipment; therefore, separate mechanical equipment rooms will be constructed. At the completion of this project, sensitive communications equipment within these communications rooms will not shut down in periods of extreme hot weather conditions.</p>
<b>Problem Since Last Quarterly Report</b>
<b>Index Trigger(s): Schedule</b>
<p><b>Schedule:</b> During the Third Quarter 2016, the forecasted Substantial Completion date for the active project C43038 (installation of HVAC at 19 Locations) slipped by three months from September 2016 to December 2016, due to a 110 day excusable delay caused by additional work at Bleecker Street. A concurrent delay was caused by additional work at Wall Street for structural repairs in the mechanical room.</p>
<b>What is Being Done</b>
<p><b>Schedule:</b> The Additional Work Order (AWO) work at Bleecker Street is progressing and a waiver is being sought from NYC Department of Transportation (NYCDOT) to perform street work at Wall Street during the period from Thanksgiving to New Years Day, in order to complete the project work by the end of December 2016. The project is progressing.</p>
<b>IEC Comment</b>
<p><b>Budget and Schedule Performance:</b> The IEC substantially agrees with the material presented in this report, including the stated problems and actions taken by the Agency.</p>
<p><b>All Agency Contractor Evaluation:</b> The IEC has reviewed the project performance for consistency in the Agency's ACE evaluation of the overall contractor's performance rating for this reporting period.</p>

<b>MTA Agency: New York City Transit</b>	<b>Status as of September 30, 2016</b>
<b>Project Name: Renewal &amp; Component Repairs at Seven Stations, Pennsylvania Ave and Rockaway Ave Stations – on the New Lots Line</b>	<b>Current Budget: \$13.6M &amp; \$13.5M</b>
	<b>Project EAC: \$15.2M &amp; \$15.0M</b>
	<b>Substantial Completion Date at Award: Apr 2017</b>
<b>Project No: T6041245 &amp; T6041246</b>	<b>Current Substantial Completion Date: Jun 2017</b>
<b>Project Phase: Construction</b>	<b>Phase Complete: 83% &amp; 88%</b>

**Project Description**

The project work consists of the renewal of the Pennsylvania Avenue and Rockaway Avenue Stations, on the New Lots Line in Brooklyn. This project will eliminate all deficient conditions rated 3 or worse at this station as rated by the Station Condition Survey. Work will include repair or replacement of platform edges, columns, windscreens, railings, lighting, selected stairs and mezzanines, as necessary.

The total project includes the renewal of four additional stations (Van Siclen, Saratoga Avenue, Junius Street, and Sutter Avenue) and component repair at one station (New Lots Avenue) on the New Lots Line.

**Problem Since Last Quarterly Report**

**Index Trigger(s): Cost**

**Cost:** During the Third Quarter 2016, the Estimate at Completion (EAC) was reported for the two stations as \$15.2M and \$15.0M, compared to a current budget of \$13.6M and \$13.5M, respectively, due to the following:

For Pennsylvania Ave Station, \$1.3M for extended bypass General Orders, which required additional bus support services for 6 months. Also \$0.2M for contingency and \$0.1M for EFA tasks required, as a result of extensive corroded canopy column repair work.

For Rockaway Ave Station, \$1.0M for TA Labor task to fund extended bypass General Orders, which required additional bus support services for 6 months. Also \$0.2M for contingency and \$0.3M for EFA tasks are required, as a result of extensive corroded canopy column repair work.

**What is Being Done**

**Cost:** A Budget Modification requesting additional funds is being finalized.

**IEC Comment**

**Budget and Schedule Performance:** The IEC substantially agrees with the material presented in this report, including the stated problems and the actions taken by the Agency.

**All Agency Contractor Evaluation:** The IEC has reviewed the project performance for consistency in the Agency's ACE evaluation of the overall contractor's performance rating for this reporting period.

<b>MTA Agency: New York City Transit</b>	<b>Status as of September 30, 2016</b>
<b>Project Name: Station Ventilators: Phase 6 – 5 Locations / Upper Manhattan &amp; Bronx</b>	<b>Current Budget: \$5.9M</b>
	<b>Project EAC: \$5.9M</b>
	<b>Substantial Completion Date at Award: Dec 2015</b>
<b>Project No: T6041295</b>	<b>Current Substantial Completion Date: Nov 2017</b>
<b>Project Phase: Construction</b>	<b>Phase Complete: 78%</b>

**Project Description**

The objective of this multi-phase project is to rehabilitate all subway ventilators and gratings rated 4.0 or worse, based on NYCT’s asset condition survey. Phase 6 will rehabilitate ventilators at five (5) locations:

- 116<sup>th</sup> Street / 8<sup>th</sup> Avenue Line
- Bedford Park Boulevard / Concourse Line
- Fordham Road / Concourse Line
- 174-175<sup>th</sup> Streets / Concourse Line
- 155<sup>th</sup> Street / Concourse Line

**Problem Since Last Quarterly Report**

**Index Trigger(s): Schedule**

**Schedule:** During the Third Quarter 2016, the forecast Substantial Completion date slipped 12 months from September 2016 to September 2017. This delay was due to the reallocation of in-house resources to address higher priority vent locations. As a result, current vent phases were reprogrammed to a later date.

**What is Being Done**

**Schedule:** Currently, work is complete at all locations except Fordham Road and Bedford Park Boulevard. Infrastructure Capital Construction (ICC) is continuing work at Fordham Road, but the work at Bedford Park is being postponed. Work is expected to resume at the remaining location in June of 2017. Subsequent to the reporting quarter, the forecast for Substantial Completion slipped an additional two months due to additional reprogramming of in-house forces as well as unforeseen field conditions.

**IEC Comment**

**Budget and Schedule Performance:** The IEC substantially agrees with the material presented in this report, including the stated problems and the actions taken by the Agency.

**All Agency Contractor Evaluation:** The construction work has been performed by in-house labor. Agency ACE evaluation is not applicable.

<b>MTA Agency: New York City Transit</b>	<b>Status as of September 30, 2016</b>
<b>Project Name: Station Ventilators: Phase 7 – 8 Locations / Lower Manhattan</b>	<b>Current Budget: \$5.1M</b>
	<b>Project EAC: \$5.1M</b>
	<b>Substantial Completion Date at Award: May 2016</b>
<b>Project No: T60412F2</b>	<b>Current Substantial Completion Date: Mar 2018</b>
<b>Project Phase: Construction</b>	<b>Phase Complete: 71%</b>

**Project Description**

The objective of this multi-phase project is to rehabilitate all subway ventilators and gratings rated 4.0 or worse, based on NYCT’s asset condition survey. Phase 7 will rehabilitate ventilators at eight (8) locations:

- 8<sup>th</sup> Street - NYU / Broadway Line
- Canal Street / Broadway Line
- Whitehall Street / Broadway Line
- 14<sup>th</sup> Street / Broadway-7<sup>th</sup> Ave Line
- Houston Street / Broadway-7<sup>th</sup> Ave Line
- Spring Street / 8<sup>th</sup> Avenue Line
- Park Place / Clark St Line
- 33<sup>rd</sup> Street / Lexington Ave Line

**Problem Since Last Quarterly Report**

**Index Trigger(s): Schedule**

**Schedule:** During the Third Quarter 2016, the forecast Substantial Completion date slipped 15 months, from September 2016 to December 2017. This delay was due to the reallocation of in-house resources to address higher priority vent locations. As a result, current vent phases were reprogrammed to a later date.

**What is Being Done**

**Schedule:** Currently, work is completed at four of the eight locations. Although work had started at Park Place and 14<sup>th</sup> Street, it has been suspended at this time. Work at Whitehall Street and Canal Street had not started. Work at all four locations is expected to resume in June of 2017. Subsequent to the reporting quarter, the forecast for Substantial Completion slipped an additional three months due to additional work required at 14<sup>th</sup> Street.

**IEC Comment**

**Budget and Schedule Performance:** The IEC substantially agrees with the material presented in this report, including the stated problems and actions taken by the Agency.

**All Agency Contractor Evaluation:** The design work is being performed by in-house labor. Agency ACE evaluation is not applicable.

<b>MTA Agency: New York City Transit</b>	<b>Status as of September 30, 2016</b>
<b>Project Name: Station Ventilators: Phase 8 - 3 Locations / Southeast Brooklyn</b>	<b>Current Budget: \$6.5M</b>
	<b>Project EAC: \$6.5M</b>
	<b>Substantial Completion Date at Award: Aug 2016</b>
<b>Project No: T60412G5</b>	<b>Current Substantial Completion Date: Feb 2018</b>
<b>Project Phase: Construction</b>	<b>Phase Complete: 66%</b>

<b>Project Description</b>	
<p>The objective of this multi-phase project is to rehabilitate all subway ventilators and gratings rated 4.0 or worse, based on NYCT's asset condition survey. Phase 8 will rehabilitate ventilators at three (3) locations:</p> <ul style="list-style-type: none"> <li>• Church Avenue / 6<sup>th</sup> Avenue Line</li> <li>• Sterling Street / Nostrand Avenue Line</li> <li>• Beverly Road / Nostrand Avenue Line</li> </ul>	
<b>Problem Since Last Quarterly Report</b>	
<b>Index Trigger(s): Schedule</b>	
<p><b>Schedule:</b> During the Third Quarter 2016, the forecasted Substantial Completion date slipped 16 months, from August 2016 to December 2017. This delay was due to the reallocation of in-house resources to address higher priority vent locations. As a result, current vent phases were reprogrammed to a later date.</p>	
<b>What is Being Done</b>	
<p><b>Schedule:</b> Currently, work is complete at all locations except Church Avenue. Work at Church Avenue is being postponed and is expected to resume in June of 2017. Subsequent to the reporting quarter, the forecast for Substantial Completion slipped an additional two months due to the additional reprogramming of in-house resources as well as unforeseen field conditions.</p>	
<b>IEC Comment</b>	
<p><b>Budget and Schedule Performance:</b> The IEC substantially agrees with the material presented in this report, including the stated problems and actions taken by the Agency</p>	
<p><b>All Agency Contractor Evaluation:</b> The construction work has been performed by in-house labor. Agency ACE is not applicable.</p>	

<b>MTA Agency: New York City Transit</b>	<b>Status as of September 30, 2016</b>
<b>Project Name: Station Ventilators: Phase 10 - 4 Locations / North Brooklyn</b>	<b>Current Budget: \$5.3M</b>
	<b>Project EAC: \$5.3M</b>
	<b>Substantial Completion Date at Award: Mar 2017</b>
<b>Project No: T60412G9</b>	<b>Current Substantial Completion Date: Feb 2019</b>
<b>Project Phase: Construction</b>	<b>Phase Complete: 9%</b>

<b>Project Description</b>	
<p>The objective of this multi-phase project is to rehabilitate all subway ventilators and gratings rated 4.0 or worse, based on NYCT's asset condition survey. Phase 10 will rehabilitate ventilators at four (4) locations:</p> <ul style="list-style-type: none"> <li>• DeKalb Avenue / Canarsie Line</li> <li>• Shepard Avenue / Fulton St Line</li> <li>• Euclid Avenue / Fulton St Line</li> <li>• Grant Avenue / Liberty Line</li> </ul>	
<b>Problem Since Last Quarterly Report</b>	
<b>Index Trigger(s): Schedule</b>	
<p><b>Schedule:</b> During the Third Quarter 2016, the forecast Substantial Completion date slipped 21 months, from March 2017 to December 2018. This delay was due to the reallocation of in-house resources to address higher priority vent locations. As a result, current vent phases were reprogrammed to a later date.</p>	
<b>What is Being Done</b>	
<p><b>Schedule:</b> Work was started at Grant Avenue, but has been suspended and work at the other locations has not started. Work at all four locations is suspended and is expected to resume in December of 2017. Subsequent to the reporting quarter, the forecast for Substantial Completion slipped an additional two months to February 2019 due to the additional reprogramming of in-house forces as well as unforeseen field conditions.</p>	
<b>IEC Comment</b>	
<p><b>Budget and Schedule Performance:</b> The IEC substantially agrees with the material presented in this report, including the stated problems and actions taken by the Agency.</p>	
<p><b>All Agency Contractor Evaluation:</b> The construction work has been performed by in-house labor. Agency ACE is not applicable.</p>	

<b>MTA Agency: New York City Transit</b>	<b>Status as of September 30, 2016</b>
<b>Project Name: 2015 Mainline Track Replacement on the Broadway-7<sup>th</sup> Avenue Line</b>	<b>Current Budget: \$14.4M</b>
	<b>Project EAC: \$14.4M</b>
	<b>Substantial Completion Date at Award: Jul 2016</b>
<b>Project No: T60502A6</b>	<b>Current Substantial Completion Date: Jan 2017</b>
<b>Project Phase: Construction</b>	<b>Phase Complete: 85%</b>

<b>Project Description</b>	
<p>This Track Reconstruction project includes the reconstruction of Mainline Track Panels, encompassing 3,306 Track Feet (85 Type III Panels) and the reconstruction of 424 Track Feet of Type II Ekki embedded Hilti in Mortar on the Broadway-7<sup>th</sup> Avenue Line. Locations were determined based on the latest track condition survey. Work includes the replacement of track and associated equipment and materials.</p>	
<b>Problem Since Last Quarterly Report</b>	
<b>Index Trigger(s): Schedule</b>	
<p><b>Schedule:</b> During the Third Quarter 2016, the forecasted Substantial Completion date slipped four months from July 2016 to November 2016 due to a need for special ties to complete work in the station area at 225<sup>th</sup> Street, Track BB-1. 75 Type III Panels have been installed and the Type II Ekki Hilti in Mortar reconstruction work has been completed.</p>	
<b>What is Being Done</b>	
<p><b>Schedule:</b> The remaining 10 Panels located in the station at 225<sup>th</sup> Street, Track BB-1, requiring the special ties, are to be installed in the early part of Fourth Quarter 2016. Subsequent to the reporting quarter, substantial completion slipped another two months to January 2017 because of scheduling conflicts and unfavorable weather conditions.</p>	
<b>IEC Comment</b>	
<p><b>Budget and Schedule Performance:</b> The IEC substantially agrees with the material presented in this report, including the stated problems and actions taken by the Agency.</p>	
<p><b>All Agency Contractor Evaluation:</b> The construction work is being performed by in-house labor. Agency ACE evaluation is not applicable.</p>	

<b>MTA Agency: New York City Transit</b>	<b>Status as of September 30, 2016</b>
<b>Project Name: Replacement of Fiber Optic Cable - Phase 1</b>	<b>Current Budget: \$8.5M</b>
	<b>Project EAC: \$12.0M</b>
	<b>Substantial Completion Date at Award: Mar 2019</b>
<b>Project No: T6080601</b>	<b>Current Substantial Completion Date: Mar 2019</b>
<b>Project Phase: Construction</b>	<b>Phase Complete: 75%</b>

<b>Project Description</b>
<p>This project is to furnish and install new 36-strand fiber optic cables for the upgrade of all major 12-strand fiber cable spans within the New York City Transit fiber cable infrastructure to support of the existing SONET/ATM communications network along the right of way system-wide determined by the Department of Subways. The project is funded across two capital program: (2010-2014 and 2015-2019). Phase 1 of the project (2010-2014 Capital Program) will fund the total design (both phases) and installation of 36 strand cable at SONET/ATM Core Ring 2 and Partial Core Ring 1.</p>
<b>Problem Since Last Quarterly Report</b>
<b>Index Trigger(s): Cost</b>
<p><b>Cost:</b> During the Third Quarter 2016, the Estimate at Completion (EAC) was reported as \$12.0M compared to a current budget of \$8.5M due to a temporary loan of funds to expedite 2015-2019 work in advance of plan approval.</p>
<b>What is Being Done</b>
<p><b>Cost:</b> Additional funding to be returned to the project reserve. Once design is completed, the EAC will be adjusted accordingly.</p>
<b>IEC Comment</b>
<p><b>Budget and Schedule Performance:</b> The IEC substantially agrees with the material presented in this report, including the stated problems and actions taken by the Agency.</p>
<p><b>All Agency Contractor Evaluation:</b> The construction work is being performed by in-house labor. Agency ACE evaluation is not applicable.</p>

<b>MTA Agency: New York City Transit</b>	<b>Status as of September 30, 2016</b>
<b>Project Name: 2015 Mainline Track Replacement on the West End Line</b>	<b>Current Budget: \$7.0M</b>
	<b>Project EAC: \$14.2M</b>
	<b>Substantial Completion Date at Award: Jul 2016</b>
<b>Project No: T6100436</b>	<b>Current Substantial Completion Date: Jun 2017</b>
<b>Project Phase: Construction</b>	<b>Phase Complete: 93%</b>

<b>Project Description</b>
<p>This Track Reconstruction project (Contract M44112) involves the installation of Type III and Type VI Panels, a total scope of 3,007 track feet (77 Panels total) on the West End Line, on track's D-1 &amp; D-2, BMT. The scope of the panels installation has been reduced from the original 3,007 track feet (77 Panels) to 2,340 track feet (60 Panels total). The Type III Panels SCRP at N/E – S/O 18<sup>th</sup> Avenue will be done in year 2020, as part of the next Capital Program, since Track Maintenance was done recently at this location.</p>
<b>Problem Since Last Quarterly Report</b>
<b>Index Trigger(s): Cost</b>
<p><b>Cost:</b> During the Third Quarter 2016, the Estimate at Completion (EAC) was reported as \$14.2M compared to a current budget of approximately \$7.0M. This was due to increased costs for labor and materials. The project has been more labor intensive than initially estimated and has required the use of more expensive materials for guarded curves.</p>
<b>What is Being Done</b>
<p><b>Cost:</b> The cost overrun for Contract M44112 for the installation of Type III and Type VI Panels on the West End Line will be compensated by funds allocated to Contract M44134 for the Type III Panels SCRP at N/E – S/O 18<sup>th</sup> Avenue, for which work has been deferred to year 2020.</p>
<b>IEC Comment</b>
<p><b>Budget and Schedule Performance:</b> The IEC substantially agrees with the material presented in this report, including the stated problems and actions taken by the Agency.</p>
<p><b>All Agency Contractor Evaluation:</b> The construction work is being performed by in-house labor. Agency ACE evaluation is not applicable.</p>

<b>MTA Agency: New York City Transit</b>	<b>Status as of September 30, 2016</b>
<b>Project Name: Manhattanville Comprehensive Façade Repairs</b>	<b>Current Budget: \$21.9M</b>
	<b>Project EAC: \$21.9M</b>
	<b>Substantial Completion Date at Award: Jun 2017</b>
<b>Project No: T6120422</b>	<b>Current Substantial Completion Date: Sep 2017</b>
<b>Project Phase: Construction</b>	<b>Phase Complete: 30%</b>

<b>Project Description</b>
<p>This project will repair the brick façade of the Manhattanville Bus Depot located in the Borough of Manhattan.</p>
<b>Problem Since Last Quarterly Report</b>
<b>Index Trigger(s): Schedule</b>
<p><b>Schedule:</b> During the Third Quarter of 2016, the forecasted Substantial Completion date slipped three months from June 2017 to September 2017 due to delay in the issuance of Department of Transportation (DOT) permits to address concerns related to a school which is located adjacent to 133<sup>rd</sup> Street.</p> <p>School Management requested that the DOT and the contractor change 133<sup>rd</sup> Street from 2-way to 1-way traffic during the partial street closure to assure a safe pickup and drop off zone for students at the school entrance. The DOT concurred but insisted that a presentation of the project and its details be made to and approved by the Community Board prior to issuance of the permits.</p>
<b>What is Being Done</b>
<p><b>Schedule:</b> The Substantial Completion date has been extended by 63 excusable and non-impactable working days from the contractual date of June 15, 2017 to the revised date of September 14, 2017.</p>
<b>IEC Comment</b>
<p><b>Budget and Schedule Performance:</b> The IEC substantially agrees with the material presented in this report, including the stated problems and actions taken by the Agency.</p>
<p><b>All Agency Contractor Evaluation:</b> The IEC has reviewed the project performance for consistency in the Agency's ACE evaluation of the overall contractor's performance rating for this reporting period.</p>

<b>MTA Agency: New York City Transit</b>	<b>Status as of September 30, 2016</b>
<b>Project Name: Purchase 65 Non Revenue Vehicles</b>	<b>Current Budget: \$11.2M</b>
	<b>Project EAC: \$11.2M</b>
	<b>Substantial Completion Date at Award: Jan 2015</b>
<b>Project No: T6130206</b>	<b>Current Substantial Completion Date: Feb 2017</b>
<b>Project Phase: Construction</b>	<b>Phase Complete: 97%</b>

<b>Project Description</b>
<p>This project will replace 65 Non Revenue vehicles that have exceeded their expected life span. Replacement of these vehicles will allow Support Fleet Services (SFS) to keep its fleet in a state of good repair, which is vital to the support of system wide maintenance and operational abilities in the Departments of Subways and Buses.</p>
<b>Problem Since Last Quarterly Report</b>
<b>Index Trigger(s): Schedule</b>
<p><b>Schedule:</b> During the Third Quarter of 2016, the forecasted Substantial Completion date slipped six months from August 2016 to February 2017, due to a delay in obtaining a crane certification from the NYC Department of Cranes and Derricks.</p>
<b>What is Being Done</b>
<p><b>Schedule:</b> Strain gauge testing of the crane will be conducted by third-party engineers, to satisfy New York Crane certification requirements. Upon successful completion of external review, certification is anticipated by December.</p>
<b>IEC Comment</b>
<p><b>Budget and Schedule Performance:</b> The IEC substantially agrees with the material presented in this report, including the stated problems and actions taken by the Agency.</p>
<p><b>All Agency Contractor Evaluation:</b> Agency ACE evaluation is not applicable to this non-construction equipment and/or material purchase.</p>

<b>MTA Agency: New York City Transit</b>	<b>Status as of September 30, 2016</b>
<b>Project Name: 2016 Mainline Track Replacement on the White Plains Road Line</b>	<b>Current Budget: \$6.3M</b>
	<b>Project EAC: \$17.3M</b>
	<b>Substantial Completion Date at Award: Jul 2017</b>
<b>Project No: T7050238</b>	<b>Current Substantial Completion Date: Jul 2017</b>
<b>Project Phase: Construction</b>	<b>Phase Complete: 70%</b>

<b>Project Description</b>
<p>This Track Reconstruction project (Contract M44144) is for the reconstruction of Mainline Track panels on the White Plains Road Line. Locations were determined based on the latest track condition survey. Work includes replacement of track and the associated equipment and materials. This project was advanced to Year 2016 from the Year 2017 Program due to track conditions and to take advantage of track access availability. The total scope of the 2017 planned White Plains Road project consists of three locations installing 5,268 Track Feet (135 Type III Panels) at a cost of \$17.3M. The 2016 advanced work project is for the installation of 1,911 Track Feet (49 Type III Panels) at one of the three locations, S/E Gun Hill Road to S/O 219<sup>th</sup> Street on Track W-2.</p>
<b>Problem Since Last Quarterly Report</b>
<b>Index Trigger(s): Cost</b>
<p><b>Cost:</b> During the Third Quarter 2016, the Estimate at Completion (EAC) was reported as \$17.3M compared to a current budget of \$6.3M due to advancement of work at the two remaining locations from 2017 to take advantage of availability of track access in 2016. As of September 30, 2016, 4,407 Track Feet (113 Type III Panels) of reconstruction is done.</p>
<b>What is Being Done</b>
<p><b>Cost:</b> The shortfall will be addressed with a future budget action, which includes reconciliation between the 2016 and 2017 Capital Programs.</p>
<b>IEC Comment</b>
<p><b>Budget and Schedule Performance:</b> The IEC substantially agrees with the material presented in this report, including the stated problems and actions taken by the Agency.</p>
<p><b>All Agency Contractor Evaluation:</b> The construction work is being performed by in-house labor. Agency ACE evaluation is not applicable.</p>

<b>MTA Agency: New York City Transit</b>	<b>Status as of September 30, 2016</b>
<b>Project Name: 2016 Mainline Switch Replacement on the 6th Avenue Line</b>	<b>Current Budget: \$10.1M</b>
	<b>Project EAC: \$11.8M</b>
	<b>Substantial Completion Date at Award: Apr 2017</b>
<b>Project No: T7050313</b>	<b>Current Substantial Completion Date: Apr 2017</b>
<b>Project Phase: Construction</b>	<b>Phase Complete: 62%</b>

**Project Description**

This 2016 project (Contract M44407) will replace 3 mainline switches at N/O Bergen Street, Track's B-1 & B-2 on the 6th Avenue Line. Locations were determined based on the latest switch condition survey. Work will include, replacement of existing turnouts, track switches, switch valves, connecting rails, ties, ballast, signal cables including positive and negative connections, and any associated signal and equipment work.

**Problem Since Last Quarterly Report**

**Index Trigger(s): Cost**

**Cost:** During the Third Quarter 2016, the Estimate at Completion (EAC) was reported as \$11.8M compared to a current budget of \$10.1M due to additional expenses associated with operation constraints, preventing the installation of the three switches from taking place concurrently, as initially planned.

**What is Being Done**

**Cost:** The cost overrun for 2016 Contract M44407 for the 6<sup>th</sup> Avenue Switches at N/O Bergen Street will be compensated by the underrun in the 2015 Contract M44123 for the 6<sup>th</sup> Avenue Switches at N/O West 4<sup>th</sup> Street. Overall, the 2015-2016 Switch Replacement at 6<sup>th</sup> Avenue, consisting of Contracts M44123 and M44407, will be on budget.

**IEC Comment**

**Budget and Schedule Performance:** The IEC substantially agrees with the material presented in this report, including the stated problems and actions taken by the Agency.

**All Agency Contractor Evaluation:** The construction work is being performed by in-house labor. Agency ACE evaluation is not applicable.

<b>MTA Agency: New York City Transit</b>	<b>Status as of September 30, 2016</b>
<b>Project Name: ADA Accessibility at Rockaway Parkway Station, Canarsie Line (BMT)</b>	<b>Current Budget: \$6.1M</b>
	<b>Project EAC: \$10.8M</b>
	<b>Original Design Completion Date: Oct 2016</b>
<b>Project No: T7041311</b>	<b>Current Design Completion Date: Feb 2017</b>
<b>Project Phase: Design</b>	<b>Phase Complete: 65%</b>

**Project Description**

This project will include installation of ADA (Americans with Disabilities Act) compliant ramps at Rockaway Parkway Station on the Canarsie Line (BMT).

**Problem Since Last Quarterly Report**

**Index Trigger(s): Cost & Schedule**

**Cost:** During the Third Quarter 2016, the Estimate at Completion (EAC) was reported as \$10.7M compared to a current budget of \$6.1M because the project budget was adjusted at program approval to achieve targeted programmatic savings.

**Schedule:** In addition, the forecast Design Completion date also slipped two months from October 2016 to December 2016, due to the scope of work being expanded to include the adjacent intermodal bus facility.

**What is Being Done**

**Cost:** Efforts are underway to achieve the targeted programmatic savings and the estimate will be adjusted to reflect any project cost modifications. The cost for the Intermodal Bus Facility, located adjacent to the project site is being finalized and funded separately.

**Schedule:** Subsequent to the reporting quarter, design completion date forecast slipped an additional two months, to February 2017 due to delay in approval of Master Plan and selection of design consultant for Intermodal Bus Facility project. The design completion of ADA work is forecast for February 2017 and the design completion of the Intermodal Bus Facility work (T5041419) is forecast for the Second Quarter of 2017. The current plan is to award both projects as one construction contract in the 4<sup>th</sup> Quarter of 2017.

**IEC Comment**

**Budget and Schedule Performance:** The IEC substantially agrees with the material presented in this report, including the stated problems and actions taken by the Agency.

**All Agency Contractor Evaluation:** The design work is being performed by in-house labor. Agency ACE evaluation is not applicable.



<b>MTA Agency: New York City Transit</b>	<b>Status as of September 30, 2016</b>
<b>Project Name: Gun Hill Depot Component Rehabilitation</b>	<b>Current Budget: \$12.0M</b>
	<b>Project EAC: \$16.3M</b>
	<b>Original Design Completion Date: Sep 2016</b>
<b>Project No: T7120302</b>	<b>Current Design Completion Date: Jan 2017</b>
<b>Project Phase: Design</b>	<b>Phase Complete: 80%</b>

<b>Project Description</b>
<p>This project will provide replacement of the existing roof with a new white Ethylene Propylene Diene Monomer rubber (EPDM) roof at the Gun Hill Bus Depot. In addition, the project will include removal of solar panels, abandoned mechanical units and the overhaul of Three (3) Automatic Fare Collection Keene machines.</p>
<b>Problem Since Last Quarterly Report</b>
<b>Index Trigger(s): Cost</b>
<p><b>Cost:</b> During the Third Quarter 2016, the Estimate at Completion (EAC) increased by \$4.3M due to an update of the initial \$12.0 million placeholder budget to the approved Preliminary Engineering estimate of \$16.3M. The placeholder budget had projected significant programmatic savings in anticipation of environmental cost reductions that were not fully realized in Final Design.</p>
<b>What is Being Done</b>
<p><b>Cost:</b> The shortfall will be addressed by a future budget action.</p>
<b>IEC Comment</b>
<p><b>Budget and Schedule Performance:</b> The IEC substantially agrees with the material presented in this report, including the stated problems and actions taken by the Agency.</p>
<p><b>All Agency Contractor Evaluation:</b> The design work is being performed by in-house labor. Agency ACE evaluation is not applicable.</p>

<b>MTA Agency: New York City Transit</b>	<b>Status as of September 30, 2016</b>
<b>Project Name: Storage Tank Replacement</b>	<b>Current Budget: \$22.4M</b>
	<b>Project EAC: \$25.6M</b>
	<b>Original Design Completion Date: Feb 2016</b>
<b>Project No: T7120405</b>	<b>Current Design Completion Date: Mar 2017</b>
<b>Project Phase: Design</b>	<b>Phase Complete: 60%</b>

**Project Description**

This project will replace the existing underground diesel fuel storage tanks at four bus depots: Jackie Gleason and East New York in Brooklyn, Gun Hill in the Bronx and Castleton in Staten Island. At these depots, the existing storage tanks and various components are beyond their useful life and will be replaced with equipment that complies with updated regulatory requirements. On September 9, 2015, the contract was split into two contracts:

- B-62027 - Storage Tanks Component Upgrade at Jackie Gleason and Castleton Bus Depots
- B-62028 - Storage Tanks Component Upgrade at East New York and Gun Hill Bus Depots

**Problem Since Last Quarterly Report**

**Index Trigger(s): Cost**

**Cost:** During the Third Quarter of 2016, the Estimate at Completion (EAC) increased by \$3.2M due to changes in the design and contracting arrangements of the project, including: changes resulting from difficulties finding a suitable site for the tanks, the inclusion of temporary fuel storage tanks during construction, and the split of the project into two contracts.

**What is Being Done**

**Cost:** Subsequent to the reporting period, a budget modification to address the funding shortfall was approved on October 5, 2016.

**IEC Comment**

**Budget and Schedule Performance:** The IEC substantially agrees with the material presented in this report, including the stated problems and actions taken by the Agency.

**All Agency Contractor Evaluation:** The design work is being performed by in-house labor. Agency ACE evaluation is not applicable.

<b>MTA Agency: New York City Transit</b>	<b>Status as of September 30, 2016</b>
<b>Project Name: Purchase of 27 Refuse Flat Cars</b>	<b>Current Budget: \$24.6M</b>
	<b>Project EAC: \$24.9M</b>
	<b>Original Design Completion Date: Dec 2015</b>
<b>Project No: T7130207</b>	<b>Current Design Completion Date: Jun 2017</b>
<b>Project Phase: Design</b>	<b>Phase Complete: 93%</b>

**Project Description**

This project will replace 27 refuse flat cars that collect and transport refuse out of stations for disposal

**Problem Since Last Quarterly Report**

**Index Trigger(s): Schedule**

**Schedule:** During the Third Quarter 2016, the forecasted Design Completion date slipped six months from December 2016 to June 2017, due to an extended period for technical specification development and the anticipated duration of the Request for Proposal (RFP) process. Award was rescheduled to allow for a combined procurement with 54 flat cars in the 2010-2014 Capital Program and 38 flat car frames (or new flat cars) funded via NYCT's operating budget.

**What is Being Done**

**Schedule:** NYCT is continuing to monitor the RFP process to avoid future delay.

**IEC Comment**

**Budget and Schedule Performance:** The IEC substantially agrees with the material presented in this report, including the stated problems and actions taken by the Agency.

**All Agency Contractor Evaluation:** The design work is being performed by in-house labor. Agency ACE evaluation is not applicable.

<b>MTA Agency: New York City Transit</b>	<b>Status as of September 30, 2016</b>
<b>Project Name: Purchase of 12 3-Ton Crane Cars</b>	<b>Current Budget: \$28.5M</b>
	<b>Project EAC: \$28.5M</b>
	<b>Original Design Completion Date: Dec 2015</b>
<b>Project No: T7130208</b>	<b>Current Design Completion Date: Jun 2018</b>
<b>Project Phase: Design</b>	<b>Phase Complete: 40%</b>

**Project Description**

This project will replace twelve 3-Ton Crane Cars that replace sections of rail, switches and switch frogs throughout the NYCT System.

**Problem Since Last Quarterly Report**

**Index Trigger(s): Schedule**

**Schedule:** During the Third Quarter 2016, the forecast Design Completion date slipped eighteen months from December 2016 to June 2018, due to an extended period for technical specification development and the anticipated duration of the Request for Proposal (RFP) process. The forecast award date was also rescheduled to better coordinate with other work car purchases for procurement efficiencies.

**What is Being Done**

**Schedule:** NYCT is continuing to monitor the finalization of specifications and initiation of the RFP process to avoid future delay.

**IEC Comment**

**Budget and Schedule Performance:** The IEC substantially agrees with the material presented in this report, including the stated problems and actions taken by the Agency.

**All Agency Contractor Evaluation:** The design work is being performed by in-house labor. Agency ACE evaluation is not applicable.

<b>MTA Agency: New York City Transit</b>	<b>Status as of September 30, 2016</b>
<b>Project Name: Purchase of 52 Diesel Electric Locomotives</b>	<b>Current Budget: \$102.5M</b>
	<b>Project EAC: \$102.5M</b>
	<b>Original Design Completion Date: Jan 2016</b>
<b>Project No: T7130211</b>	<b>Current Design Completion Date: Dec 2017</b>
<b>Project Phase: Design</b>	<b>Phase Complete: 30%</b>

<b>Project Description</b>
<p>This project will replace 52 diesel electric locomotives that have exceeded their expected life span. Diesel electric locomotives are used to pull flat cars, crane cars, hopper cars and other non-self-propelled work cars to and from work sites. The work trains are primarily used by the Division of Track for track rehabilitation projects and by Capital Project Management for various capital construction projects.</p>
<b>Problem Since Last Quarterly Report</b>
<b>Index Trigger(s): Schedule</b>
<p><b>Schedule:</b> During the Third Quarter of 2016, the forecast Design Completion date slipped eleven months from January 2017 to December 2017, due to an extended period of time required for technical specification development and the anticipated duration of the Request for Proposal (RFP) process.</p>
<b>What is Being Done</b>
<p><b>Schedule:</b> NYCT is continuing to monitor the finalization of specifications and initiation of the RFP process to avoid future delay.</p>
<b>Comment</b>
<p><b>Budget and Schedule Performance:</b> The IEC substantially agrees with the material presented in this report, including the stated problems and actions taken by the agency.</p>
<p><b>All Agency Contractor Evaluation:</b> The design work is being performed by in-house labor. Agency ACE evaluation is not applicable.</p>

<b>MTA Agency: Long Island Rail Road</b>	<b>Status as of September 30, 2016</b>
<b>Project Name: East River Tunnel Track Replacement</b>	<b>Current Budget: \$43.2M</b>
	<b>Project EAC: \$43.6M</b>
	<b>Substantial Completion Date at Award: Jun 2017</b>
<b>Project No: L60301TM</b>	<b>Current Substantial Completion Date: Dec 2018</b>
<b>Project Phase: Construction</b>	<b>Phase Complete: 75%</b>

<b>Project Description</b>
<p>The project involves the replacement of East River Tunnel (ERT) running rail, ties, ballast, and the flushing/cleaning of drain troughs in Lines 3 and 4. The original project scope included all four ERT's, but further Total Track Replacement Project (TTRP) work in Lines 1 and 2 was eliminated on Jan 1, 2015 due to Amtrak's future (forecast 2019) total demolition of Lines 1 &amp; 2 bench walls and track bed.</p>
<b>Problem Since Last Quarterly Report</b>
<b>Index Trigger(s): Schedule</b>
<p><b>Schedule:</b> During the Third Quarter 2016, the Substantial Completion/Beneficial Use date for this project slipped eleven months from January 2018 to December 2018 due to Amtrak's inability to provide the required 23 track outages to get the work done in the scheduled timeframe. During 2016, the LIRR was allowed only 6 track outages which further delayed the completion date. As a result, it is now anticipated that substantial completion will be achieved in December 2018.</p>
<b>What is Being Done</b>
<p><b>Schedule:</b> Project Management continues to be vigilant in seeking any additional weekend outages as they become available.</p>
<b>IEC Comment</b>
<p><b>Budget and Schedule Performance:</b> The IEC substantially agrees with the material presented in this report, including the stated problems and actions taken by the Agency.</p>
<p><b>All Agency Contractor Evaluation:</b> The construction work is being performed by in-house labor. Agency ACE evaluation is not applicable.</p>

<b>MTA Agency: Long Island Rail Road</b>	<b>Status as of September 30, 2016</b>
<b>Project Name: Speonk to Montauk Signalization</b>	<b>Current Budget: \$73.0M</b>
	<b>Project EAC: \$73.0M</b>
	<b>Substantial Completion Date at Award: Apr 2017</b>
<b>Project No: L60502LC</b>	<b>Current Substantial Completion Date: Dec 2017</b>
<b>Project Phase: Construction</b>	<b>Phase Complete: 72%</b>

**Project Description**

This project provides for an Automatic Speed Control (ASC) Signal System from Speonk to Montauk, including:

- Installation of track circuits, signal huts and cases, cabling, switch machines, signals, insulated joints, fiber runs, and new power feeds.
- Installation of interlockings at Hampton Bays and at Southampton, control points at Amagansett and Montauk, and an interface for new and old signal systems at Speonk.
- Installation of remote control software and hardware revisions at Babylon Tower.

This project will facilitate compliance with Positive Train Control (PTC), and will also provide independent benefits should PTC not be implemented on a track segment.

**Problem Since Last Quarterly Report**

**Index Trigger(s): Schedule**

**Schedule:** During the Third Quarter 2016, the Substantial Completion (SC) date slipped eight months, from April 2017 to December 2017. This slip is in part due to delays in the design and delivery of the prewired enclosures. The original delivery schedule was for a phased 15 month period beginning in July 2014 and ending September 2015. The actual delivery schedule started one month late and lasted for 19 months, beginning in August 2014 and ending February 2016. Based on the late deliveries of the signal enclosures and the amount of effort that remains to fully install, wire and test the equipment has resulted in a revised forecast of the SC date.

**What is Being Done**

**Schedule:** All of the originally contracted prewired equipment has been delivered, with 98% installed on site. Internal signal wiring and cabling continues, and signal equipment testing and partial cutovers continue. Communications continues with splicing of fiber optic cables and the contractor continues installation of power to the signal equipment.

**IEC Comment**

**Budget and Schedule Performance:** The IEC substantially agrees with the material presented in this report, including the stated problems and actions taken by the Agency.

**All Agency Contractor Evaluation:** The IEC has reviewed the project performance for consistency in the Agency’s ACE evaluation of the overall contractor’s performance rating for this reporting period.

<b>MTA Agency: Long Island Rail Road</b>	<b>Status as of September 30, 2016</b>
<b>Project Name: Morris Park Communications Building Rehabilitation</b>	<b>Current Budget: \$10.47M</b>
	<b>Project EAC: \$10.46M</b>
	<b>Substantial Completion Date at Award: Jun 2016</b>
<b>Project No: L60604YT</b>	<b>Current Substantial Completion Date: Apr 2017</b>
<b>Project Phase: Construction</b>	<b>Phase Complete: 95%</b>

<b>Project Description</b>	
<p>This project covers the rehabilitation of some of Long Island Railroad’s (LIRR) employee facilities at the Jamaica Corporate Building, Morris Park Building, Richmond Hill Sheridan Shop, and others. The scope of work consists of roofing replacement, HVAC unit replacement, paving, curbs, signage, striping, façade repairs, replacement of existing fire alarm system, and various structural rehabilitation.</p>	
<b>Problem Since Last Quarterly Report</b>	
<b>Index Trigger(s): Schedule</b>	
<p><b>Schedule:</b> During the Third Quarter 2016, the forecasted Substantial Completion date slipped three months, from January 2017 to April 2017. This slip was due to unforeseen site conditions. When LIRR labor forces removed the wall to wall shelving in the basement, the condition of the walls were in poor condition with structural failures. The designer of record did not have access to the walls for proper visual inspection and sounding. Because of this, the designer made assumptions of shallow repair of fifteen square feet per wall. All this structural repair work is 90% out of scope change order work, therefore the original schedule must be pushed out to complete these extensive repairs. In addition, after the scaffold erection was complete the exterior façade was inspected and areas in need of concrete repair were identified. This is also out of scope work because the designer of record had no access to these location.</p>	
<b>What is Being Done</b>	
<p><b>Schedule:</b> Change Orders and time extensions will be negotiated and contract modifications issued so the contractor can proceed with the additional work.</p>	
<b>IEC Comment</b>	
<p><b>Budget and Schedule Performance:</b> The IEC substantially agrees with the material presented in this report, including the stated problems and actions taken by the Agency.</p>	
<p><b>All Agency Contractor Evaluation:</b> The IEC has reviewed the project performance for consistency in the Agency’s ACE evaluation of the overall contractor’s performance rating for this reporting period.</p>	

<b>MTA Agency: Metro-North Railroad</b>	<b>Status as of September 30, 2016</b>
<b>Project Name: Harlem &amp; Hudson Lines Power Improvements</b>	<b>Current Budget: \$33.7M</b>
	<b>Project EAC: \$41.7M</b>
	<b>Substantial Completion Date at Award: Aug 2016</b>
<b>Project No: M6050103</b>	<b>Current Substantial Completion Date: Feb 2018</b>
<b>Project Phase: Construction</b>	<b>Phase Complete: 45%</b>

**Project Description**

The project involves construction of a new 86<sup>th</sup> St. Substation. The existing Substation is rated at 3.3 Megawatt (MW) and is fed from a single Con-Ed source. The new substation will provide 6.6 MW of power and utilize two independent feeds from Con-Ed improving the system operational redundancy. The project also involves the replacement of existing Negative Return Reactors at the 110<sup>th</sup> St. Substation with larger capacity units.

**Problem Since Last Quarterly Report**

**Index Trigger(s): Schedule, Cost and Contingency**

**Schedule:** During the Third Quarter 2016 the forecasted Substantial Completion date slipped 19 months from July 2016 to February 2018. This slip was due in part to:

- Design changes to the emergency egress at the 86<sup>th</sup> St. Substation East and West Platforms due to revisions in the emergency evacuation industry safety standards
- Unforeseen conditions (Asbestos detected in the Substation roof at the 86<sup>th</sup> St. East Platform)
- Lack of flagging and force account support due to other priority projects
- Contractor work cancellations

**Cost and Contingency:** The high cost and contingency index were triggered in the Third Quarter 2016 due to the reasons identified above.

**What is Being Done**

To mitigate negative schedule and cost impacts to the project, the following actions have been, or are in the process of being taken:

**Schedule:** Working with the Contractor to mitigate schedule delays due to Contractor work cancellations and lack of Flagging and Force account support

**Cost and Contingency:** The additional funding required for the project has been programmed in the 2015 to 2019 Capital Program Plan Amendment. Upon the approval of the Plan Amendment, the additional funding will be added to the project through change orders to the existing construction contract.

**IEC Comment**

**Budget and Schedule Performance:** The IEC substantially agrees with the material presented in this report, including the stated problem and action taken by the Agency.

**All Agency Contractor Evaluation:** The IEC has reviewed the project performance for consistency in the Agency's ACE evaluation of the overall contractor's performance rating for this reporting period.

<b>MTA Agency: Bridges and Tunnels</b>	<b>Status as of September 30, 2016</b>
<b>Project Name: Replace Upper &amp; Lower Level Plaza and Southbound Approach. Henry Hudson Bridge</b>	<b>Current Budget: \$50.2M</b>
	<b>Project EAC: \$49.0M</b>
	<b>Substantial Completion Date at Award: Jun 2016</b>
<b>Project No: D602HH88</b>	<b>Current Substantial Completion Date: Dec 2016</b>
<b>Project Phase: Construction</b>	<b>Phase Complete: 90%</b>

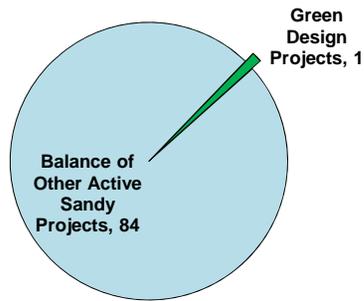
<b>Project Description</b>
Replace upper and lower level plaza and replace approach structure at the Henry Hudson Bridge. The work is the first phase of construction to be performed, which includes utility upgrades; and Mechanical /Electrical /Plumbing equipment replacements. The current project task allocation is \$19,242,746.
<b>Problem Since Last Quarterly Report</b>
<b>Index Trigger(s): Contingency and Schedule</b>
<p><b>Contingency:</b> During the Third Quarter 2016, the Contingency Index increased to 1.16 due to a proposed amendment for the new Open Road Tolling (ORT) system, which went live on November 20th. In order to enable traffic to flow freely and safely, the existing toll booths, canopy, concrete toll island and camera support gantry need to be removed.</p> <p><b>Schedule:</b> During construction of the electrical system, a design change was initiated to include more robust fuses for the system. These fuses were needed in order to provide proper coordination with the electrical equipment and to avoid unwanted tripping of the fuses. The specialized components had a long lead time to procure, and additional time was needed for project completion. A change order was issued to the contractor and the Substantial Completion (SC) date was extended from June 2016 to August 2016. However, the contractor experienced additional delays (related to the electrical Power Distribution center and the granite building façade) that caused a delay beyond the August SC date.</p> <p>Also, the toll booths needed to be fully removed by the end of 2016 and this work could not be performed until the ORT Gantry system was live and collecting tolls, which commenced on November 20, 2016.</p> <p>Therefore, the additional time extension from August to December 2016 is a result of the two partially concurrent delays – one due to contractor issues with the power distribution and the other due to the Authority’s request to demolish the tollbooths.</p>
<b>What is Being Done</b>
<p><b>Contingency and Schedule:</b> No further action is necessary at this time; the ORT amendment for the above work has been submitted and executed. The amendment was originally planned for \$738,539 but was subsequently reduced to \$519,498. With this reduced value, the Contingency Index is now only 0.9. All project work including the demolition of the upper level toll booths is targeted to be completed by December 31, 2016.</p> <p>The project management team is closely monitoring the work and will continue to mitigate cost and schedule issues while delivering a quality product and value to the MTA and its customers.</p>
<b>IEC Comment</b>
<b>Budget and Schedule Performance:</b> The IEC substantially agrees with the material presented in this report, including the stated problems and actions taken by the Agency.
<b>All Agency Contractor Evaluation:</b> The IEC has reviewed the project performance for consistency in the Agency’s ACE evaluation of the overall design contractor’s performance rating for this reporting period.

**3<sup>rd</sup> Quarter 2016 Traffic Light Report on MTA SANDY Program**

**A total of 85 Active Sandy Projects were Reviewed for the 3<sup>rd</sup> Quarter 2016**

The 85 active projects include 1 projects in Design, 15 in Post-Design to Construction Award, and 69 in Construction

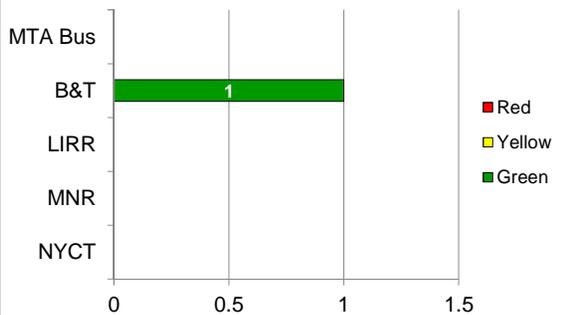
**1 of 85 Projects in Design**



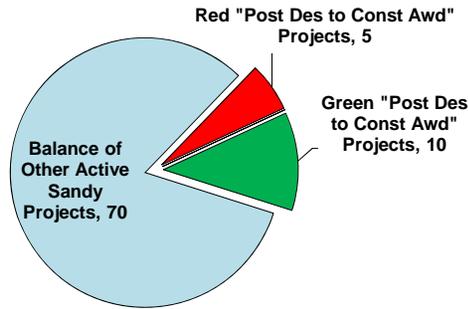
**Summary of Projects in Design:** 1 project was reviewed in the design phase and it was designated green for the quarter.

**Last Quarter:** 2 projects were reviewed in this phase with 1 (50%) designated green, 0 (0%) yellow and 1(50%) was Red.

**1 Projects in Design**



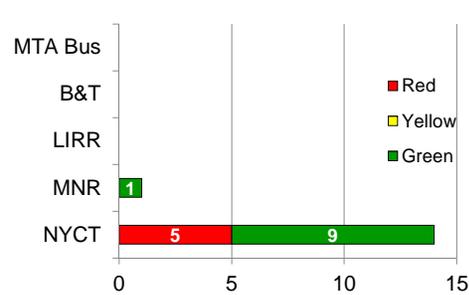
**15 of 85 Projects in Post-Design to Construction Award**



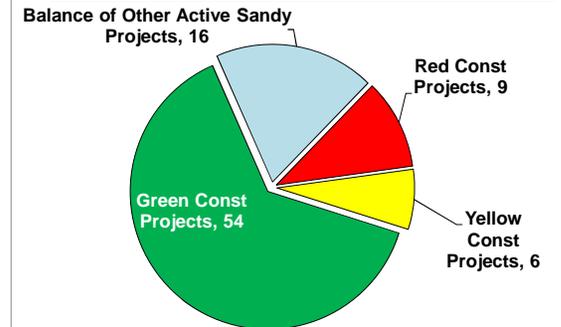
**Summary of Projects in Post-Design to Construction Award:** 15 projects were reviewed in this phase with 10 (67%) designated green, none were yellow and 5 (33%) were Red. The 4 out of the 5 Red projects in this phase this quarter were Red for a schedule variance and the other was for a cost variance. The schedule variances were due to negotiation of an easement agreement.

**Last Quarter:** 8 projects were reviewed in this phase with 6 (75%) designated green, 1 (12.5%) yellow and 1 (12.5%) was Red.

**15 Projects in Post-Design to Construction Award**



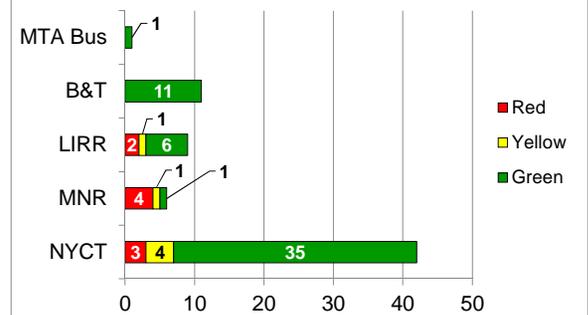
**69 of 85 Projects in Construction**



**Summary of Projects in Construction:** 69 projects were reviewed in this phase with 54 (78%) designated green, 6 (9%) yellow and 9 (13%) were Red. The 9 projects in the Construction phase which were designated Red, 7 were for a schedule variance, 1 was for a cost variance, and the other was for a contingency variance. The prevailing reason for schedule variances this quarter was due to slow progress.

**Last Quarter:** : 62 projects were reviewed in this phase with 55 (89%) designated green, 5 (8%) yellow and 2 (3%) were Red.

**69 Projects in Construction**



## MTA Sandy Recovery Projects Terms and Definitions

### 3<sup>rd</sup> Quarter 2016 Traffic Light Report

The following Terms and Definitions used to identify a project’s Traffic Light color designation show variances from quarter to quarter and are based on three performance indicators: cost, contingency and schedule. A project is designated a “**red light project**” when one or more of the three indicators exceed a specified threshold. Agencies are required to produce follow-up one-page reports for all qualified red light projects. Included in these reports are one-page agency summaries (on pink paper stock) of issues associated with each project showing a **red** indicator and how the issues are being resolved. A project is designated a “**yellow light project**” after one or more performance indicators had triggered a red in a previous quarter. A yellow project may revert back to green after four consecutive quarters if the performance indicators have not worsened. A project is designated a “**green light project**” when no performance indicator has exceeded the Traffic Light Reports specified thresholds.

#### Sandy Recovery Traffic Light Report Project Terms and Definitions

##### **Projects in Design: 1**

-  Green: Indices less than 115% and index movement less than 15%
-  Red: Cost Index: An EAC increase of 15% (or index movement of 15% or more since last Traffic Light Report)
-  Red: Schedule Variance: An increase of 3 months or more to substantial completion or since last Traffic Light Report
-  Yellow: Previously indicated as **red** with no new substantial change since last Traffic Light Report / A project in design that has been designated Yellow may be returned to Green when it has been in compliance with the three performance indicators for (four consecutive quarters) one year.

##### **Projects in Post Design to Construction Award Phase: 15**

-  Green: Phase Duration less than either the default of 128 calendar days for all agencies or the agency entered duration.
-  Red: Phase Duration is greater than either the default 128 calendar days or the agency entered duration.
-  Yellow: Previously indicated as **red** with no new substantial change since last Traffic Light Report.

##### **Projects in Construction: 69**

-  Green: Indices less than 110% and index movement less than 10%  
Other indices not exceeding those criteria specified in index formulas and criteria.
-  Red: Cost or Contingency Index: An increase of 10% (or index movement of 10% more since last Traffic Light Report)
-  Red: Schedule Variance: An increase of 3 months or more to substantial completion or since last Traffic Light Report
-  Yellow: Previously indicated as **red** with no new substantial change since last Traffic Light Report / A project in construction that has been designated Yellow may be returned to Green when it has been in compliance with the three performance indicators for (four consecutive quarters) one year.

<b><u>Projects in Planning:</u></b>
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Projects in Planning are reviewed but not displayed in the TLR until the project reaches the design phase.
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<b><u>Projects Completed:</u></b>
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Projects that were completed in previous quarters are not displayed in the current quarter's TLR, but continue to be maintained in the TLR project database for reporting purposes on the overall Sandy Program.
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<b><u>Report Index Formulas and Criteria:</u></b>
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- |  |
|--|
| ➤ Cost Variance = $EAC / \text{Current Project Budget Amount}$<br>(Note: Current Budget is not Budget at Award)  |
| ➤ Cost Contingency Index = $\% \text{ Contingency Spent} / \% \text{ 3}^{\text{rd}} \text{ Party Contract Completion}$<br>– Contingency used includes expended & pending AWOs.<br>– Prompted when project has reached 50% completion or higher.  |
| ➤ Schedule Variance = Number of months of change in schedule since last Traffic Light Report   |
| ➤ Projects with current budgets below \$5M are not displayed in the current quarter's Sandy TLR, but will continue to be maintained in the TLR database for reporting purposes on the overall Sandy Program. If the current budget increases above the \$5M minimum threshold, the projects will return to an active status. |

**3rd Quarter 2016 Traffic Light Report**  
**Sandy Projects in Design, Post-Design to Construction Award or Construction**

▲ = Index increase: Trending indicates condition worsening since last quarterly report  
 ▼ = Index decrease: Trending indicates condition improving since last quarterly report  
 ■ = No Change since last quarterly report

ACEP #	Description	Phase	Project Type	Total Project EAC	% Phase Complete	Cont. Index	Cont. Trend	Cost Index	Cost Trend	Schedule Variance (Mths)	Sched. Trend	Traffic Light
<b>NYCT - New York City Transit Sandy Program</b>												
<b>South Ferry Rehab</b>												
ET040213	Recovery: South Ferry Station Complex	Construction	Recovery	\$167,980,928	76	.13	■	1.00	■	0	■	G
ET050213	Recovery: Mainline Track (South Ferry)	Construction	Recovery	\$18,837,838	76	.63	▼	1.00	■	0	■	Y
ET050216	Recovery: Mainline Switches (South Ferry)	Construction	Recovery	\$6,746,779	77	.00	■	1.00	■	0	■	G
ET060217	Recovery: Pump Room (South Ferry)	Construction	Recovery	\$5,403,075	76	.00	■	1.00	■	0	■	G
ET060223	Recovery: Fan Plant (South Ferry)	Construction	Recovery	\$7,307,176	79	1.08	▼	1.00	■	0	■	Y
ET060227	Recovery: Tunnel Lighting (South Ferry)	Construction	Recovery	\$9,198,732	76	.00	■	1.00	■	0	■	G
ET080201	Recovery: South Ferry Interlocking	Construction	Recovery	\$66,443,423	76	.00	■	.99	■	0	■	G
ET090235	Recovery: 2 Circuit Breaker Houses (South Ferry)	Construction	Recovery	\$18,891,129	76	.00	■	1.00	■	0	■	G
ET160212	Recovery: Leak Remediation (South Ferry)	Construction	Recovery	\$11,334,524	73	.45	▼	1.00	■	0	■	G
<b>Cranberry Tube Rehab</b>												
ET060230	Recovery: 2 Pump Rooms (Cranberry Tube)	Construction	Recovery	\$15,590,252	69	.00	■	1.24	▲	0	■	R
ET060231	Recovery: 2 Fan Plants (Cranberry Tube)	Construction	Recovery	\$16,616,778	54	.00	■	1.00	■	0	■	G
ET080214	Recovery: Signals (Cranberry Tube)	Construction	Recovery	\$17,463,334	35	.00	■	.96	■	0	■	G
ET090220	Recovery: Power and Communication Cables (Cranberry Tube)	Construction	Recovery	\$50,686,785	69	.00	■	1.00	■	0	■	G
<b>Coney Island Yard Flood Mitigation</b>												
ET100307	Mitigation: Long Term Perimeter Protection at Coney Island Yard	Post Des to Const Awd	Mitigation	\$46,604,915	100	.00	■	2.12	▲	0	■	R
<b>53rd St Tube Rehab</b>												
ET050212	Recovery: Mainline Track (53 Street Tube)	Construction	Recovery	\$12,036,095	61	.00	■	1.00	■	2	▲	G
ET080215	Recovery: Signals (53 Street Tube)	Construction	Recovery	\$10,394,141	67	.00	■	1.00	■	2	▲	G
ET090225	Recovery: Power and Communication Cables (53 Street Tube)	Construction	Recovery	\$49,710,404	59	.00	■	1.00	■	2	▲	G
ET090238	Recovery: Substation (53 Street Tube)	Construction	Recovery	\$20,145,722	25	.00	■	1.00	■	2	▲	G

**3rd Quarter 2016 Traffic Light Report**  
**Sandy Projects in Design, Post-Design to Construction Award or Construction**

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ACEP #	Description	Phase	Project Type	Total Project EAC	% Phase Complete	Cont. Index	Cont. Trend	Cost Index	Cost Trend	Schedule Variance (Mths)	Sched. Trend	Traffic Light
<b>NYCT - New York City Transit Sandy Program</b>												
<b>All Other NYCT Projects</b>												
ET050211	Track: Clark St Tube	Construction	Recovery	\$9,581,139	0	.00	■	1.00	▲	0	■	G
ET060234	Clark St Tube: Pump Room #3166	Construction	Recovery	\$7,988,704	0	.00	■	1.00	▲	0	■	G
ET060324	Sandy Resiliency: 3 Pump Rooms (Clark Tube)	Construction	Mitigation	\$6,074,200	0	.00	■	1.00	▲	0	■	G
ET080212	Signals: Clark St Tube	Construction	Recovery	\$9,204,970	0	.00	■	1.00	▲	0	■	G
ET040217	Recovery: Purchase and Install Automated Fare Collection Equipment	Construction	Recovery	\$12,021,714	95	.00	■	1.00	■	0	■	Y
ET040314	Mitigation: Stairwell Protection (Flexgates)	Construction	Mitigation	\$18,688,686	66	1.98	▲	.99	■	0	■	R
ET040318	Mitigation: Coastal Storm Mechanical Closure Devices	Construction	Mitigation	\$10,436,603	4	.00	■	.99	■	0	■	G
ET040320	Mitigation: Critical Room Resiliency	Construction	Mitigation	\$22,659,179	5	.00	■	1.00	■	0	■	G
ET040322	Mitigation: Street Level Openings	Construction	Mitigation	\$45,924,466	0	.00	■	1.00	■	0	■	G
ET040324	Mitigation: Internal Station Hardening at 7 Stations	Construction	Mitigation	\$5,031,262	0	.00	■	1.00	■	0	■	G
ET060216	Recovery: Tunnel Lighting (Joralemon Tube)	Construction	Recovery	\$44,477,300	26	.00	■	1.00	■	0	■	G
ET060218	Recovery: 2 Pump Rooms (Southern Manhattan)	Construction	Recovery	\$7,215,402	85	.32	■	1.00	■	0	■	G
ET060224	Recovery: 3 Fan Plants (Southern Manhattan)	Construction	Recovery	\$25,711,415	92	.21	■	1.00	■	0	■	G
ET060226	Recovery: Fan Plant (Clark Tube)	Construction	Recovery	\$5,234,519	0	.00	■	1.00	▼	0	■	G
ET060228	Recovery: Tunnel Lighting (200th to 207th Street / 8th Avenue)	Construction	Recovery	\$18,973,449	88	.02	■	1.00	■	6	▲	R
ET060305	Mitigation: 17 Fan Plants and Adjacent Tunnels	Construction	Mitigation	\$43,997,139	1	.00	■	1.00	■	0	■	G
ET060306	Mitigation: Above-Grade Surface Protection at 6 Fan Plants	Construction	Mitigation	\$6,890,122	0	.00	■	1.06	■	0	■	G
ET060308	Mitigation: Hatch Replacement and Installation of Mechanical Closure Devices at Various Fan Plants (SBFP)	Construction	Mitigation	\$5,190,742	88	.45	▼	1.00	■	-2	▼	Y

**3rd Quarter 2016 Traffic Light Report  
Sandy Projects in Design, Post-Design to Construction Award or Construction**

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ACEP #	Description	Phase	Project Type	Total Project EAC	% Phase Complete	Cont. Index	Cont. Trend	Cost Index	Cost Trend	Schedule Variance (Mths)	Sched. Trend	Traffic Light
<b>NYCT - New York City Transit Sandy Program</b>												
<b>All Other NYCT Projects</b>												
ET060313	Mitigation: 2 Pump Rooms (Joralemon Tube)	Construction	Mitigation	\$7,353,461	10	.00	■	1.00	■	0	■	G
ET060320	Mitigation: 11 Fan Plants	Construction	Mitigation	\$27,420,845	0	.00	■	1.00	▼	0	■	G
ET090218	Recovery: Substation (Joralemon Tube)	Construction	Recovery	\$5,597,241	8	.00	■	1.00	■	0	■	G
ET090221	Recovery: Power and Communication Cables (Joralemon Tube)	Construction	Recovery	\$61,414,862	29	.00	■	1.02	■	0	■	G
ET090224	Recovery: Power and Communication Cables (Clark Street Tube)	Construction	Recovery	\$78,026,559	0	.00	■	1.00	▼	0	■	G
ET040222	Sandy Repairs: Shaft Excavation - 1 Ave / Canarsie	Post Des to Const Awd	Recovery	\$7,862,708	100	.00	■	1.00	▲	1	▲	G
ET050209	Track: Canarsie Tube	Post Des to Const Awd	Recovery	\$165,385,926	100	.00	■	1.00	▲	1	▲	G
ET060219	Sandy Repairs: Pump Room #1035 Canarsie Tube	Post Des to Const Awd	Recovery	\$11,090,049	100	.00	■	1.00	▲	1	▲	G
ET090309	Sandy Mitigation: Power / Cables/ Ducts: Canarsie	Post Des to Const Awd	Mitigation	\$153,440,456	100	.00	■	1.00	▲	1	▲	G
ET100311	Sandy Mitigation: 148th Street Yard Portal	Post Des to Const Awd	Mitigation	\$6,767,042	99	.00	■	1.00	▲	4	▲	R
ET080211	Recovery: Signals (Canarsie Tube)	Post Des to Const Awd	Recovery	\$73,267,595	100	.00	■	1.00	▼	1	▲	G
ET090211	Recovery: 2 Circuit Breaker Houses (Canarsie Tube)	Post Des to Const Awd	Recovery	\$6,709,584	100	.00	■	.97	▼	1	▲	G
ET090212	Recovery: Power Cable, Communication Cable and Ducts (Canarsie Tube)	Post Des to Const Awd	Recovery	\$248,498,615	100	.00	■	1.00	▼	1	▲	G

**3rd Quarter 2016 Traffic Light Report**  
**Sandy Projects in Design, Post-Design to Construction Award or Construction**

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ACEP #	Description	Phase	Project Type	Total Project EAC	% Phase Complete	Cont. Index	Cont. Trend	Cost Index	Cost Trend	Schedule Variance (Mths)	Sched. Trend	Traffic Light
<b>NYCT - New York City Transit Sandy Program</b>												
<b>All Other NYCT Projects</b>												
ET090219	Recovery: Power and Communication Cables (Rutgers Tube)	Post Des to Const Awd	Recovery	\$41,712,027	100	.00	■	4.20	■	0	■	G
ET100209	Recovery: Power Cable at 148 Street Yard	Post Des to Const Awd	Recovery	\$18,054,880	100	.00	■	1.00	▼	4	▲	R
ET100211	Recovery: Power Cable at Coney Island Yard	Post Des to Const Awd	Recovery	\$7,241,164	100	.00	■	1.02	■	4	▲	R
ET100218	Recovery: 207 Street Yard Signal System	Post Des to Const Awd	Recovery	\$12,566,735	90	.00	■	1.98	■	0	■	G
ET100309	Mitigation: Long Term Perimeter Protection at 148th Street Yard	Post Des to Const Awd	Mitigation	\$104,109,992	99	.00	■	.99	▼	4	▲	R
ES070213	Recovery: St. George Terminal Tower B - Phase 2	Construction	Recovery	\$6,602,800	0	.00	■	1.00	■	0	■	G
ES070214	Recovery: St. George Interlocking	Construction	Recovery	\$102,306,871	64	.70	▲	1.00	■	0	■	G
<b>LIRR - Long Island Rail Road Sandy Program</b>												
<b>All Other Projects</b>												
EL0303ZH	Flood and Emergency Management Equipment Mitigation	Construction	Mitigation	\$19,963,199	0	.00	■	.99	■	-8	▼	G
EL0402ZB	Wreck Lead Bridge Systems Restoration	Construction	Recovery	\$14,859,812	23	.00	■	1.00	■	-7	▼	G
EL0403ZJ	Atlantic Ave Tunnels Mitigation	Construction	Mitigation	\$9,900,000	83	.00	■	1.00	■	1	▲	G
EL0502ZC	Restoration of the Long Beach Branch	Construction	Recovery	\$64,910,327	28	.00	■	1.00	■	20	▲	R
EL0602ZD	West Side Storage Yard Restoration	Construction	Recovery	\$43,300,000	14	.00	■	1.00	■	-10	▼	G
EL0603ZK	Long Island City Yard Resiliency	Construction	Mitigation	\$26,803,366	8	11.45	▲	1.00	■	-3	▼	Y
EL0702ZE	Long Beach Branch Substation Replacement.	Construction	Recovery	\$51,531,926	4	.00	■	.99	■	-10	▼	G
EL0702ZM	First Avenue Substation Restoration	Construction	Recovery	\$8,429,861	50	.00	■	1.00	■	3	▲	R
EL0902ZF	Infrastructure / System Upgrades (Various Locations)	Construction	Recovery	\$9,700,000	60	.00	■	1.00	■	0	■	G

**3rd Quarter 2016 Traffic Light Report  
Sandy Projects in Design, Post-Design to Construction Award or Construction**

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ACEP #	Description	Phase	Project Type	Total Project EAC	% Phase Complete	Cont. Index	Cont. Trend	Cost Index	Cost Trend	Schedule Variance (Mths)	Sched. Trend	Traffic Light
<b>MNR - Metro-North Railroad Sandy Program</b>												
<b>Hudson Line Ph I Power and C&amp;S Restoration</b>												
EM040205	Communications & Signal Infrastructure Restoration Phase 1	Construction	Recovery	\$44,396,376	27	.00	■	.95	■	6	▲	R
EM040301	Power and Signals Mitigation	Construction	Mitigation	\$49,968,066	27	.00	■	.99	■	6	▲	R
EM040302	Hudson Line Power and Signal Resiliency	Construction	Mitigation	\$31,000,000	27	.00	■	1.00	■	6	▲	R
EM050206	Power Infrastructure Restoration Phase 1	Construction	Recovery	\$84,344,709	27	.00	■	.95	■	6	▲	R
<b>All Other Projects</b>												
EM030202	Right of Way Restoration	Construction	Recovery	\$8,000,000	60	.00	■	1.00	▲	0	■	Y
EM050208	Power Infrastructure Restoration - Substations	Construction	Recovery	\$40,091,038	52	1.00	▼	.91	■	2	▲	G
EM030301	Rail Vacuum Mitigation	Post Des to Const Awd	Mitigation	\$5,656,302	5	.00	■	.94	■	0	■	G
<b>B&amp;T - Bridges and Tunnels Sandy Program</b>												
<b>Hugh Carey Tunnel Restoration</b>												
ED010228	Restoration of Hugh Carey Tunnel after Super Storm Sandy	Construction	Recovery	\$123,212,295	39	.00	■	.50	■	-15	▼	G
ED020202	Restore Hugh Carey Tunnel roadway after Super Storm Sandy	Construction	Recovery	\$8,484,013	39	.00	■	.47	■	-15	▼	G
ED040243	Restore Hugh Carey Tunnel utilities damaged by Super Storm Sandy	Construction	Recovery	\$137,991,096	39	.10	▲	.80	■	-15	▼	G
ED050202	Environmental clean-up at the Hugh Carey Tunnel after Super Storm Sandy	Construction	Recovery	\$16,748,046	39	.20	▼	.82	■	-15	▼	G
<b>Queens Midtown Tunnel Rehab</b>												
ED010240	Restoration of Queens Midtown Tunnel after Super Storm Sandy	Construction	Recovery	\$113,459,281	27	.23	▼	.82	■	-17	▼	G

**3rd Quarter 2016 Traffic Light Report**  
**Sandy Projects in Design, Post-Design to Construction Award or Construction**

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ACEP #	Description	Phase	Project Type	Total Project EAC	% Phase Complete	Cont. Index	Cont. Trend	Cost Index	Cost Trend	Schedule Variance (Mths)	Sched. Trend	Traffic Light
<b>B&amp;T - Bridges and Tunnels Sandy Program</b>												
<b>Queens Midtown Tunnel Rehab</b>												
ED040281	Restoration of Queens Midtown Tunnel - Control/Communications Systems CCTV Traffic Signals after Super Storm Sandy	Construction	Recovery	\$111,682,880	27	.17	▼	.95	■	-17	▼	G
ED050203	Environmental clean-up at Queens Midtown Tunnel after Super Storm Sandy	Construction	Recovery	\$11,452,200	27	.00	■	.70	■	-17	▼	G
<b>All Other Projects</b>												
ED040207	Restoration of Marine Parkway Bridge -electrical equipment damaged by Super Storm Sandy	Construction	Recovery	\$8,002,447	14	3.69	▲	.89	■	0	■	G
ED040210	Restoration of Cross Bay Bridge Utilities damaged by Super Storm Sandy	Construction	Recovery	\$13,196,234	14	.00	■	.95	■	0	■	G
ED050301	Flood Mitigation - Relocate revenue equipment at the Verrazano Narrows Bridge	Construction	Mitigation	\$7,260,566	45	.00	■	.95	■	0	■	G
ED060201	MTA B&T administration related to Sandy funding and program implementation.	Construction	Recovery	\$15,510,000	0	.00	■	1.00	■	0	■	G
ED010324	Master Plan and resiliency needs for Marine Parkway and Cross Bay Bridges	Design	Mitigation	\$9,598,426	71	.00	■	.95	■	0	■	G
<b>MTA Bus Program</b>												
<b>All Other Projects</b>												
EU030201	Recovery: Far Rockaway Depot	Construction	Recovery	\$15,000,000	0	.00	■	1.00	▲	0	■	G

<b>MTA Agency: New York City Transit</b>	<b>Status as of September 30, 2016</b>
<b>Project Name: Sandy Recovery: Two Pump Rooms - Cranberry Tube</b>	<b>Current Budget: \$12.5M</b>
	<b>Project EAC: \$15.6M</b>
	<b>Substantial Completion Date at Award: Aug 2016</b>
<b>Project No: ET060230</b>	<b>Current Substantial Completion Date: Mar 2017</b>
<b>Project Phase: Construction</b>	<b>Phase Complete 58%</b>

**Project Description**

This project will raise the controls and implement mitigation measures for the pumping systems (Pump Rooms #2077 and #2080) at the shaft locations of the Cranberry Tube.

**Problem Since Last Quarterly Report**

**Index Trigger(s): Cost**

**Cost:** During the Third Quarter 2016, the Estimate at Completion (EAC) increased by \$3.1M from \$12.5M to \$15.6M due to new work that was added to the project. The Cranberry Tube contractor is already mobilized and working at these locations. It was efficient to add this work to the existing scope as an Additional Work Order. The work being added includes: Furnish and install new level probes; desilt sump pits; remove and replace existing power and electrical components; remove and replace existing instrumentation and controls and furnish and install new weir wall system at track level.

**What is Being Done**

**Cost:** Subsequent to the reporting quarter, this additional work was broken out into a related resiliency project under ET060323, Sandy Resiliency: Two Pump Rooms - Cranberry Tube (E40842).

**IEC Comment**

**Budget and Schedule Performance:** The IEC substantially agrees with the material presented in this report, including the stated problem and action taken by the Agency.

**All Agency Contractor Evaluation:** The IEC has reviewed the project performance for consistency in the Agency's ACE evaluation of the overall contractor's performance rating for this reporting period.

<b>MTA Agency: New York City Transit</b>	<b>Status as of September 30, 2016</b>
<b>Project Name: Sandy Mitigation: Power Cabling &amp; Long-Term Perimeter Protection - Coney Island Yard</b>	<b>Current Budget: \$7M &amp; \$22M</b>
	<b>Project EAC: \$7.2M &amp; \$46.6M</b>
	<b>Original Award Date: Nov 2016</b>
<b>Project No: ET100211 &amp; ET100307</b>	<b>Current Award Date: Mar 2017</b>
<b>Project Phase: Post-Design to Construction Award</b>	<b>Phase Complete: 100%</b>

<b>Project Description</b>
<p>This contract will build a new cable bridge, install new traction power and communication cables, and construct long-term flood mitigation measures at the Coney Island Yard that were damaged due to Superstorm Sandy. Mitigation work will include construction of a perimeter protection wall and installation of water detention and a pumping system to improve yard drainage.</p>
<b>Problem Since Last Quarterly Report</b>
<b>Index Trigger(s): Schedule &amp; Cost</b>
<p><b>Schedule:</b> During the Third Quarter 2016, the forecasted Construction Award date slipped four months from November 2016 to March 2017 for Power Cabling (ET100211) due to joint award with Long-Term Perimeter Protection work.</p> <p><b>Cost:</b> Also, the Estimate of Completion (EAC) for C34836 (ET100307) increased by \$22.4M from \$24.2M to \$46.6M due to the negotiated Construction Design support and Consultant Construction Management Cost.</p>
<b>What is Being Done</b>
<p><b>Schedule:</b> No additional delay is anticipated at this time.</p> <p><b>Cost:</b> The budget shortfall will be addressed by future budget action.</p>
<b>IEC Comment</b>
<p><b>Budget and Schedule Performance:</b> The IEC substantially agrees with the material presented in this report, including the stated problems and actions taken by the Agency.</p>
<p><b>All Agency Contractor Evaluation:</b> The project is in the post-design to construction award phase. Agency ACE evaluation is not applicable.</p>

<b>MTA Agency: New York City Transit</b>	<b>Status as of September 30, 2016</b>
<b>Project Name: Sandy Mitigation: Stairwell Protection - Flexgates</b>	<b>Current Budget: \$18.7M</b>
	<b>Project EAC: \$18.7M</b>
	<b>Substantial Completion Date at Award: Sep 2017</b>
<b>Project No: ET040314</b>	<b>Current Substantial Completion Date: Sep 2017</b>
<b>Project Phase: Construction</b>	<b>Phase Complete 66%</b>

<b>Project Description</b>
<p>This project involves the fabrication and installation of flood protection measures at subway station public stairwells vulnerable to Coastal Storm Flooding. Featured protection is retractable tension fabric barriers (Flexgate).</p>
<b>Problem Since Last Quarterly Report</b>
<b>Index Trigger(s): Contingency</b>
<p><b>Contingency:</b> During the Third Quarter 2016, the rate of contingency expenditures exceeded the overall percent complete, causing a contingency index of 1.98 due to \$1.5M worth of Additional Work Orders (AWOs), approved and pending, pertaining to the following: painting the Flex gate storage boxes, electrical grounding work, installation of temporary K rails, purchase of 23 K rail units and chopping of the curb coping to accommodate the installation of the units. Also, during the course of construction, unforeseen field conditions were encountered and the K rail storage boxes required painting for aesthetic reasons.</p>
<b>What is Being Done</b>
<p><b>Contingency:</b> A budget modification is currently being circulated to address the additional costs under this project. In addition, an AWO will be processed to add another flex gate installation at the Bowling Green Head House.</p>
<b>IEC Comment</b>
<p><b>Budget and Schedule Performance:</b> The IEC substantially agrees with the material presented in this report, including the stated problems and actions taken by the Agency.</p>
<p><b>All Agency Contractor Evaluation:</b> The IEC has reviewed the project performance for consistency in the Agency's ACE evaluation of the overall contractor's performance rating for this reporting period.</p>



<b>MTA Agency: New York City Transit</b>	<b>Status as of September 30, 2016</b>
<b>Project Name: Sandy Recovery: Tunnel Lighting - 200<sup>th</sup> to 207<sup>th</sup> St / 8<sup>th</sup> Avenue Line</b>	<b>Current Budget: \$18.9M</b>
	<b>Project EAC: \$19.0M</b>
	<b>Substantial Completion Date at Award: Aug 2016</b>
<b>Project No: ET060228</b>	<b>Current Substantial Completion Date: Feb 2017</b>
<b>Project Phase: Construction</b>	<b>Phase Complete: 92%</b>

**Project Description**

This project addresses the replacement of existing tunnel lighting and receptacles in the tracks from 207<sup>th</sup> Street Yard to 200<sup>th</sup> Street/ Dyckman St. Station, 8<sup>th</sup> Avenue Line that were damaged by Superstorm Sandy.

**Problem Since Last Quarterly Report**

**Index Trigger(s): Schedule**

**Schedule:** During the Third Quarter 2016, the forecasted Substantial Completion date slipped six months from November 2016 to February 2017 due to a combination of lack of track access on track D4 and a delay in the delivery of equipment.

**What is Being Done**

**Schedule:** In order to mitigate impact to the schedule, both the Construction Manager and contractor are working together to expedite the communication and electrical equipment work.

**IEC Comment**

**Budget and Schedule Performance:** The IEC substantially agrees with the material presented in this report, including the stated problems and actions taken by the Agency.

**All Agency Contractor Evaluation:** The IEC has reviewed the project performance for consistency in the Agency's ACE evaluation of the overall contractor's performance rating for this reporting period.

<b>MTA Agency: New York City Transit</b>	<b>Status as of September 30, 2016</b>
<b>Project Name: Sandy Mitigation: Power Cabling Replacement, Portal &amp; Long-Term Perimeter Protection – 148<sup>th</sup> Street Yard</b>	<b>Current Budget: \$17.9M, \$104.1M, &amp; \$6.8M</b>
	<b>Project EAC: \$18.1M, \$104.1M, &amp; \$6.8M</b>
	<b>Original Award Date: Nov 2015</b>
<b>Project No: ET100209, ET100309 &amp; ET100311</b>	<b>Current Award Date: Mar 2017</b>
<b>Project Phase: Post-Design to Const. Award</b>	<b>Phase Complete 99%</b>

**Project Description**

This contract will address damage at 148<sup>th</sup> Street Yard from Superstorm Sandy and institute long-term measures to protect assets from damage from a future storm surge event. Work includes construction of a floodwall at the north and south end of the site, installation of watertight driveway gates, installation of steel stop logs at the tunnel portal, and replacement of power cables.

**Problem Since Last Quarterly Report**

**Index Trigger(s): Schedule**

**Schedule:** During the Third Quarter 2016, the forecasted Award date slipped four months from November 2016 to March 2017 due to the negotiation of an easement agreement with the adjacent Esplanade apartment complex.

**What is Being Done**

**Schedule:** Negotiations are ongoing and are expected to take about 3-6 months to complete.

**IEC Comment**

**Budget and Schedule Performance:** The IEC substantially agrees with the material presented in this report, including the stated problem and action taken by the Agency.

**All Agency Contractor Evaluation:** The project is in the post-design to construction award phase. Agency ACE evaluation is not applicable.

<b>MTA Agency: Long Island Rail Road</b>	<b>Status as of September 30, 2016</b>
<b>Project Name: Long Beach Branch Systems Restoration</b>	<b>Current Budget: \$64.9M</b>
	<b>Project EAC: 64.9M</b>
	<b>Substantial Completion Date at Award: Jan 2018</b>
<b>Project No: EL0502ZC</b>	<b>Current Substantial Completion Date: Sep 2019</b>
<b>Project Phase: Construction</b>	<b>Phase Complete: 38%</b>

**Project Description**

This project will replace various systems along the Long Beach Branch damaged by Superstorm Sandy. Work includes; new signal & signal Supervisory Control and Data Acquisition (SCADA) systems, 3<sup>rd</sup> rail component replacement and communications component replacement.

**Problem Since Last Quarterly Report**

**Index Trigger(s): Schedule**

**Schedule:** During the Third Quarter 2016, LIRR reported that the forecast Substantial Completion (SC) date shifted twenty months from January 2018 to September 2019. This was due to LIRR senior management making a business decision in the 4<sup>th</sup> Quarter 2014, to introduce, into the procurement of the design and supply of pre-wired signal equipment, the application of a “Request for Expression of Interest (RFEI)” to ensure competition. Following the RFEI process and awarding of the contract, the schedule was further extended due to the time needed to resolve the supplier’s adverse information prior to award and to account for the current lead time for delivery and installation of the signal equipment.

**What is Being Done / Current Status**

**Schedule:** The standard monthly progress meetings are being augmented with weekly conference calls to discuss all open technical issues and ensure a quick resolution. Design is ongoing and fabrication for several locations has commenced. The contractor is currently on schedule to meet the contractual delivery dates. As an additional control, the LIRR Contract includes liquidated damages for each of the major deliverables throughout the duration of the contractor’s project schedule, not just at substantial completion.

**IEC Comment**

**Budget and Schedule Performance:** The IEC substantially agrees with the material presented in this report, including the stated problem and action taken by the Agency.

**All Agency Contractor Evaluation:** The IEC has reviewed the project performance for consistency in the Agency’s ACE evaluation of the overall contractor’s performance rating for this reporting period.

<b>MTA Agency: Long Island Rail Road</b>	<b>Status as of September 30, 2016</b>
<b>Project Name: First Avenue Substation – AC Switchgear Replacement</b>	<b>Current Budget: \$8.4M</b>
	<b>Project EAC: \$8.4M</b>
	<b>Substantial Completion Date at Award: Jul 2016</b>
<b>Project No: EL0702ZM</b>	<b>Current Substantial Completion Date: Jan 2017</b>
<b>Project Phase: Construction</b>	<b>Phase Complete: 28%</b>

**Project Description**

This is a Design-Build project by a third party contractor to provide two new fully operational Alternating Current (AC) Switchgears for the traction power substation to replace existing switchgears made inoperable due to Superstorm Sandy. Demolition and removal of existing switchgears is sequenced so substation power is continuously maintained to provide third rail power to the 4 East River Tunnels during substation restoration work. Some of the integrated resiliency work includes hardening of splice connections and termination points to resist water infiltration, and raising the AC Switchgear concrete foundations above base flood elevation.

**Problem Since Last Quarterly Report**

**Index Trigger(s): Schedule**

**Schedule:** During the Third Quarter 2016, the forecasted Substantial Completion date slipped three months, from October 2016 to January 2017 due to the following reasons:

- Multi-Purpose Relay testing and Programmable Logic Control (PLC) functionality test.
- Modifications to the Ground & Testing device to meet contract specifications.
- Con Ed feeder cable 4M75 was damaged by a Con Ed third party contractor that was working on a different contract in the area.
- Upon re-energization of 4M75, there was an electrical failure in a breaker serving LIRR AC Switchgear equipment, which led to restaging of the work.

**What is Being Done**

**Schedule:** LIRR is working with Con Ed to mitigate the delay for inspecting and re-energizing of the feeder. As per Con Ed, re-energization could take four to six weeks.

**IEC Comment**

**Budget and Schedule Performance:** The IEC substantially agrees with the material presented in this report, including the stated problems and actions taken by the Agency.

**All Agency Contractor Evaluation:** The IEC has reviewed the projects performance for consistency in the Agency’s ACE evaluation of the overall designer’s performance rating for this reporting period.



<b>MTA Agency: Metro-North Railroad</b>	<b>Status as of September 30, 2016</b>
<b>Project Name: Sandy Communication, Power, and Signal Infrastructure Restoration Phase One</b>	<b>Current Budget: \$164.1M (total for Phase I D-B)</b>
	<b>Project EAC: \$158.1M (total for Phase I D-B)</b>
	<b>Substantial Completion Date at Award: Jun 2017</b>
<b>Project No: EM040205, EM040301, EM040302, &amp; EM050206 (Phase I D-B)</b>	<b>Current Substantial Completion Date: Dec 2017</b>
<b>Project Phase: Construction</b>	<b>Phase Complete: 27%</b>

**Project Description**

The scope of this design-build project is to replace Communication, Power and Signal components including the replacement of 30 miles of fiber optic cable, that were damaged by salt water intrusion as a result of Superstorm Sandy on the Hudson Line. These components include sectionalizing switches, snowmelter cabinets and conduit, third rail, cable plant, signal power transformers, reactors, etc. Some of these components have failed while many other components have experienced a significant reduction in useful life expectancy, and future reliability of service is unknown. The project also includes installation of duct banks for the cables and new elevated platforms for electrical equipment for future resiliency against storms.

This project is being implemented in two sequential phases: Phase I will provide for restoration work from track location CP19 (Greystone) to CP35 (Croton-Harmon). Phase II will provide for restoration work from CP5 (Bronx) to CP19 (Greystone).

**Problem Since Last Quarterly Report**

**Index Trigger(s): Schedule**

**Schedule:** During the Third Quarter 2016, the Substantial Completion slipped six months from June 2017 to December 2017. The delay of the project is due to the slow progress as a result of the design-builder's tough installation challenges during the early months and the progression of the 30% design. This delay could increase further depending on the contractor's work productivity, and may have a potential linear impact on the Phase II start and completion dates.

**What is Being Done**

**Schedule:** Metro North Railroad (MNR) is working with the contractors to recover a portion of the delay and resolving time impact issues. In addition, MNR force account is providing additional flag support and is working extended off-peak hours and weekends. This provides the design builder "enhanced" access to areas along the Right Of Way during the current track outage, thereby allowing work to occur concurrently in multiple locations, including and not limited to support for the added track crossings required.

**IEC Comment**

**Budget and Schedule Performance:** The IEC substantially agrees with the material presented in this report, including the stated problems and actions taken by the Agency.

**All Agency Contractor Evaluation:** The IEC has reviewed the project performance for consistency in the Agency's ACE evaluation of the overall contractor's performance rating for this reporting period.



## **Projects in CPOC's Risk-Based Monitoring Program (3<sup>rd</sup> Quarter 2016 Traffic Light Report – Period Ending Sept 30, 2016)**

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The following projects in CPOC's Risk-based Monitoring Program are currently reported on by the responsible agency in accordance with the CPOC Work Plan schedule, and are continually monitored by the Independent Engineering Consultant. Monitored Capital Program projects are not included in the Quarterly Capital Traffic Light Report. Monitored Sandy Program projects are included in the Quarterly Sandy Traffic Light Report. The program/project list is subject to periodic review and adjustment by the MTA.

### **2010-14 Capital Program**

- **Second Avenue Subway**
- **East Side Access & Regional Investments**
- **East Side Access Readiness**
- **Cortlandt Street Station #1 Line**
- **Signals & Communications**
  - Positive Train Control
  - CBTC- Flushing Line
  - CBTC- Culver Line
  - CBTC- 8<sup>th</sup> Avenue Line
  - CBTC Queens Blvd. West, Phase I
  - CBTC Queens Blvd West, Phase II
  - VHF Radio
  - Integrated Service Information & Management (ISIM B-Div.)
  - Replace Bus Radio System
  - Construct Bus Operations Command Center
- **New Fare Payment System**
- **New Subway Car Procurement**
- **New Bus Procurement**
- **CRR Rolling Stock Procurement**
- **NYCT Stations Program**
  - Sea Beach Line –Renewal 9 Stations
- **MNR Shops and Yards**
  - Harmon Shop Replacement Phase V, Stage 1
- **LIRR Infrastructure**
  - Main Line Double Track – Phase I, Central Islip to Ronkonkoma
  - Main Line Double Track- Phase II, Central Islip to Farmingdale
- **Bridges & Tunnels**
  - Verrazano-Narrows Bridge Upper Level Deck Replacement
  - RFK Bridge Bronx Toll Plaza Structure Reconstruction



**Projects in CPOC's Risk-Based Monitoring Program  
(3<sup>rd</sup> Quarter 2016 Traffic Light Report – Period Ending Sept 30, 2016)**

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**Sandy Program**

- South Ferry Terminal Complex Rehabilitation
- Hugh L. Carey Tunnel Restoration
- Queens Midtown Tunnel Rehabilitation
- Hudson Line, Phase I - Power and C&S Infrastructure Restoration
- Cranberry Tube Rehabilitation
- Coney Island Shop & Yard Flood Mitigation
- 53<sup>rd</sup> Street Tube Rehabilitation
- Canarsie Tube Reconstruction
- Clifton Shop

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

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

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

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

No items for LIRR

No items for MNR

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

**\*\* Including any exercised options**

MTA Agency: New York City Transit

Risk Assessment Report Date: September 13, 2016

Project Name: NYCT Viaduct and Bridge Replacement on the Myrtle Avenue Line (BMT)

Status of Project when Risk Assessment Was Performed: Pre-Award

**Project Description**

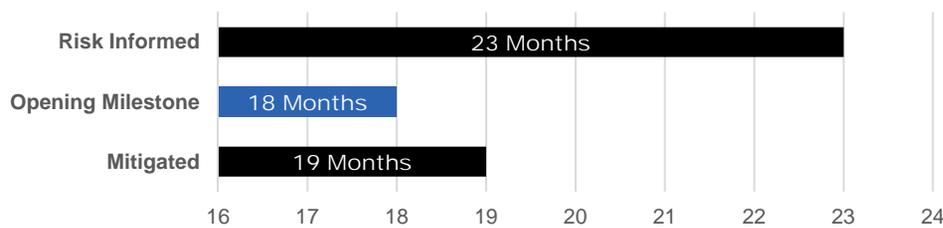
This project provides for rehabilitation of the Myrtle Ave Line Viaduct/Elevated Structure (Bushwick Cut) and Track, replacement of Thru-Span Bridge over the NY & Atlantic Railroad Right-of-Way, replacement of the Employee Walkway from the Myrtle Bridge to Metropolitan Avenue Station (approximately 600 LF), and construction of an Inspection Facility consisting of two structures: a 202'x34' pre-engineered building for the Inspection Building, and a 175'x12' masonry structure for the Annex.

**Risk Assessment Findings**

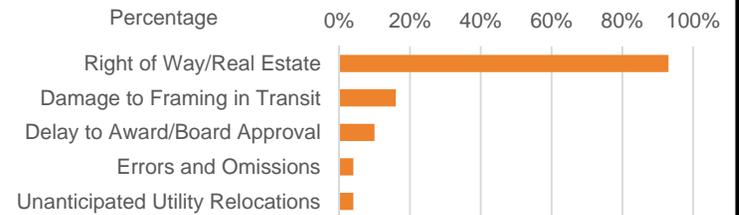
Based upon simulation results at the 80% Confidence Level, the unmitigated Risk-Informed duration from award to reopening the M line (opening milestone) is 23 months, adding 5 months to the project baseline schedule duration of 18 months. The major contributor to the additional 5 months is the risk of not completing the real estate acquisitions and relocations in a timely manner. When the real estate risk is assumed not to occur (mitigated), the risk-informed duration is reduced by 4 months. The Risk-Informed estimate results at the 80% Confidence Level for the total project cost is \$185 million. The project budget is \$158 million, which includes contingency, and is \$27 million below the risk-informed cost. The mitigated cost estimate at the 80% Confidence Level is \$180 million which is \$22 million above the base estimate and \$5 million below the risk-informed cost. NYCT is currently reconciling the project budget with the mitigated risk-informed cost.

**Risk Informed Cost and Schedule Results**

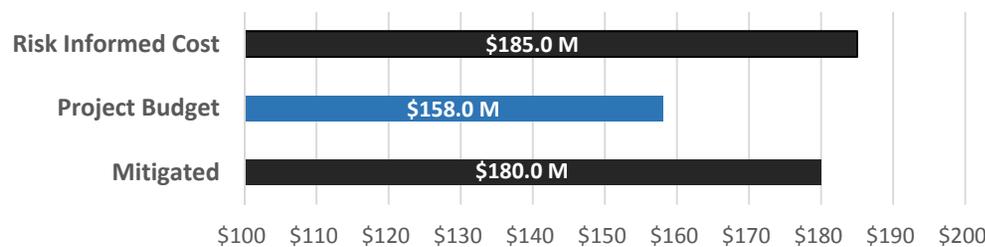
**Risk Informed Milestone Duration @ 80% vs. Baseline Schedule**



**Top Schedule Risks (Relative Contribution)**



**Overall Project Cost @ 80% Risk Informed Project Costs**



**Top Cost Risks (Relative Contribution)**





### Summary of Major Schedule Risks & Mitigations

Risks	Mitigation Measure	Resources Required	Time Frame for Mitigation
<b>Top Schedule Risks</b>			
Timely real estate acquisitions and relocations	MTA RE will start court proceedings to obtain temporary construction easements by January 2017. If relocation settlements with the remaining properties cannot be reached by March 2017, a separate eminent domain proceeding will commence to temporarily vacate all affected properties by June 1, 2017. Board approval was issued in October 2016 to start the court proceedings. Nearly 90% of the 30 apartments/household units have agreed to relocate.	NYCT and MTA Real Estate	By construction award for ROW and by June 2017 for all other properties.
Damage to prefabricated framing elements in transit	Minor damage can be repaired on site. Some elements are typical and can be substituted. Special (low level) equipment has been investigated for use and availability to pass under the overhead structures. A good location for storage should be considered.	NYCT CM and Consultant CM	Start of delivery through erection completion.
Errors and omissions/change orders	Have consultant on site to review RFIs, CO, etc. Quicker turnaround time.	NYCT, design consultant and consultant CM	Award to substantial completion.
Delay to award/Board approval.	A two-month delay to the November 1, 2016 award is forecast. If the July 1, 2017 date for M line closure is not met, NYCT will need to shorten the viaduct replacement time or extend the closure. There are currently eight months scheduled between M line reopening and Canarsie L line closure.	NYCT PM and CM	From award through viaduct replacement completion.



Summary of Major Cost Risks & Mitigations

Risks	Mitigation Measure	Resources Required	Time Frame for Mitigation
<b>Top Cost Risks</b>			
Costs due to schedule delay	See previous sheet for schedule risk mitigations. These are additional costs caused by increased schedule.	NYCT, design consultants and consultant CM	Project Duration
Uncertainty of market conditions (RETIRED)	Now that the contractor has been chosen and the cost negotiated, this risk is retired.	Contractor staff	Procurement
Errors and omissions/change orders	Review of design documents and response to contractor questions during RFP process. Quick review of RFIs and CO requests.	NYCT, design consultant and consultant CM	Award to substantial completion
Shuttle bus duration	Don't start M line closure until everything is ready. Carefully track contractor progress and accelerate if needed.	Project team	Award through M line reopening

MTA Agency: New York City Transit

Risk Assessment Report Date: September 09, 2016

Project Name: NYCT Design and Construction of Clifton Repair Shop in Staten Island

Status of Project when Risk Assessment Was Performed: Procurement

**Project Description**

Superstorm Sandy flooded and incapacitated the existing Staten Island Railway ("SIR") Clifton Shop with seawater. While urgent repairs were made to the facility shortly after the storm to restore limited operations, the shop is still not operating at full pre-storm functionality and experiences flooding when there is a heavy rainfall. While making long-term repairs would restore the shop's full functionality, making such a significant investment in an aging facility would still leave the shop vulnerable to future storm events and require the construction of a freestanding perimeter wall for protection. In addition, any improvements in the shop will need to be designed to deal with future fleet plans and maintenance practices for servicing new rail cars. When comparing the cost of this work to other alternatives that meet SIR's current and future operational needs, replacement of the existing facility with a new state-of-the-art resilient shop emerged as the most cost-effective alternative to protect against future storm-related damages, meet SIR's current and future demand for maintaining new rail cars, and relocate administrative staff currently situated in nearby rented space.

**Risk Assessment Findings**

Based upon simulation results at the 80% Confidence Level, the unmitigated Risk-Informed duration from award to substantial completion is 51 months, 8 months variance to the project duration of 43 months. The mitigated project duration at the 80% confidence level is 49 months, 6 months variance to the project duration. The Risk-Informed estimate results at the 80% Confidence Level for the total project cost is \$208.3 million. The base project budget is \$198.6 million which includes contingency and is \$9.7 million below the risk-informed cost. The mitigated cost estimate is \$196.7 million is \$1.9 million below the project budget. The mitigated cost estimate is consistent with the project budget.

**Risk Informed Cost and Schedule Results**

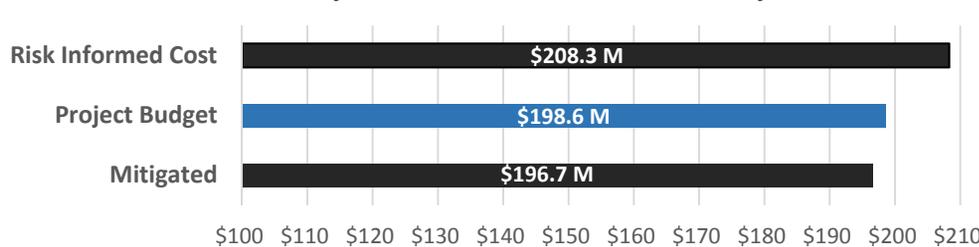
**Risk Informed Project Duration @ 80 % vs. Baseline**



**Top Schedule Risks (Relative Contribution)**



**Overall Project Cost @ 80 % Risk Informed Project Bid Costs**



**Top Cost Risks (Relative Contribution)**





### Summary of Major Schedule Risks & Mitigations

Risks	Mitigation Measure	Resources Required	Time Frame for Mitigation
<b>Top Schedule Risks</b>			
Scope Change	Changes in site conditions, user requests, and new regulations could result in change orders. Generally, the end user agreed to the layout and concept so they don't expect significant changes. SIR has been involved early in the whole process.	NYCT PM and CM, and user groups	Project Duration
O&Ms submittal/review and approval	When O&Ms are not submitted timely it impacts the testing. Manuals have been an issue and not getting them in a timely manner has impacted commissioning on many projects. There will be about 50 manuals for this project, and coordination between user groups and DB team is needed to meet schedule.	NYCT PM and CM, and user groups	Project Duration
Delay in Award (Assumed to 11/30/2016 during RA)	Project award anticipated December 2016.	NYCT, MTA	RFP Stage
As Builts submittal/review and approval	As built drawings (first submittal) should be submitted prior to Substantial Completion.	NYCT PM and CM, and user groups	Project Duration



Summary of Major Cost Risks & Mitigations

Risks	Mitigation Measure	Resources Required	Time Frame for Mitigation
<b>Top Cost Risks</b>			
General Conditions (RETIRED)	To be negotiated during RFP Process. Project award is submitted to December board for approval.	Project Team, Agency	Procurement
Escalation	This risk is impacted by project duration, and change in scope.	DB Team, agency PM/CM, User Groups	Project Duration
Impact on Cost due to other work in SI	Coordination with surrounding projects	NYCT, design consultant and consultant CM	Project Duration
Mobilization Cost (RETIRED)	To be negotiated during RFP process	Project team	Procurement