Metropolitan Transportation Authority

Capital Program Committee Meeting

March 2024

Committee Members

J. Lieber, Chair
J. Barbas, Vice Chair
A. Albert
G. Bringmann
N. Brown
S. Chu
M. Fleischer
R. Glucksman
D. Jones
B. Lopez
D. Mack
H. Mihaltses
J. Rizzo
J. Samuelsen
V. Tessitore
N. Zuckerman

Capital Program Committee Meeting

Monday, 3/25/2024
12:45 - 1:45 PM ET

1. SUMMARY OF ACTIONS
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2. PUBLIC COMMENTS PERIOD

3. APPROVAL OF MINUTES- FEBRUARY 26, 2024
CPC Committee Minutes - Page 4

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CPC Work Plan for March 2024 - Page 8

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CONSTRUCTION & DEVELOPMENT
COMMITTEE ACTIONS
SUMMARY for MARCH 2024

Responsible Department	Vendor Name	Total Amount	Summary of Action
Contracts	Skanska ECCO III JV	$5,000,000	Ratification of a modification to furnish and install a new fire water tank at the Croton-Harmon Yard.
Contracts	DKT Contractors LLC	$310,000	Ratification of a modification for additional steel column repairs, a new structural slab and drain at stairs P8 and P9 at the 33rd Street Station on the Lexington Line.
Contracts	JTTC JV	$12,743,164	Ratification of two modifications for the repair of 157 additional sidewall columns, 34 additional roof beams and 2 struts on the Concourse Line between 161st Street and 205th Street in the Bronx.
Contracts	HNTB New York Engineering & Architecture, P.C.	$1,169,637	Ratification of a modification for additional detailed inspection of the orthotropic deck welds at three spans of the Robert F. Kennedy Bridge.

MINUTES OF MEETING
MTA CAPITAL PROGRAM COMMITTEE
February 26, 2024
New York, New York
12:15 P.M

CPC Members present (*attended remotely):
Hon. Janno Lieber, Chair
Hon. Andrew Albert
Hon. Jaime Barbas
Hon. Gerard Bringmann
Hon. Norman Brown
Hon. Samuel Chu
Hon. Blanca Lopez
Hon. Haeda Mihaltses
Hon. John-Ross Rizzo
Hon. Randolph Glucksman*

CPC Members not present:
Hon. Michael Fleischer
Hon. David Jones
Hon. David Mack
Hon. John Samuelsen
Hon. Vincent Tessitore, Jr.
Hon. Neal Zuckerman

MTA staff present:
Quemuel Arroyo
Stephen Berrang
Christine Budhwa
Lew Deara
Evan Eisland
Paige Graves
Steven Loehr
John McCarthy
Shanifah Rieara
Mark Roche
Jamie Torres-Springer
Michele Woods

Independent Engineering Consultant staff present:
Liz King
Sirish-Sarat Peyyeti

* * *

Chairman Lieber called the February 26, 2024, Capital Program Committee Meeting to order at 1:39 P.M.

Public Comments Period

There were five Public Speakers during the Hybrid Public Comment Period: Jack Connors; Charlton D'souza; Jason Alexander; Christopher Grief; and Matthew Buchys Hyland*.

*Provided comment virtually

Details of the following presentations, and Committee Members' comments and questions with respect thereto, are included in the video recording of the meeting, produced by the MTA, and maintained in MTA's records.

Accessibility Update

President Jamie Torres-Springer introduced Chief Accessibility Officer, Quemuel Arroyo, to announce important changes to the Congestion Pricing accessibility roll out. Mr. Arroyo opened by acknowledging that usually he speaks about the MTA's progress on accessibility - new elevators, ramps, and other technologies and innovations - this month however, he is focused on Congestion Pricing, both how that funding is affecting accessibility projects and the disability exemptions in Congestion Pricing fees. Mr. Arroyo pointed out that Congestion Pricing always intended to have exemptions for New Yorkers with disabilities and emergency vehicles. Initial plans focused on exempting New Yorkers with disability plates from Congestion Pricing - however in working with advocates in the community the MTA has decided that is not the most equitable roll out. Instead, the MTA has created the Individual Disability Exemption Plan (IDEP). Under this plan, individuals who qualify for IDEP may register one vehicle that belongs to the applicant, a family member, or a caregiver, as exempt. To create a streamlined process, all 170,000 individuals who qualify for paratransit will automatically get approved in the IDEP system. Those outside the paratransit ecosystem will have to apply and then prove they have a qualifying mobility disability at a defined assessment center. The MTA is also moving forward with an Organizational Disability Exemption Plan, under this plan vehicles that primarily transport people with disabilities, such as Access-A-Ride, adult day program vehicles, and ambulette providers would all be exempt.

Next Mr. Arroyo emphasized that he is not the Chief Disability Officer but, instead, the Chief Accessibility Officer, pointing out that accessibility is important for all who use the system including 130,000 caregivers with strollers added to the system every year, 1 million New Yorkers with disabilities, 1.5 million ageing New Yorkers who want to age in place in the communities that they built, and the 65 million tourists and those travelling with luggage. Congestion pricing will help all New Yorkers move faster and cleaner as it will take an estimated 200,000 vehicles off the road, improving traffic flow which in turn improves car, bus, and paratransit speeds. Additionally, Congestion Pricing will help fund projects in communities that have been historically overlooked in all 5 boroughs and provide funding for newer trains and buses that have an array of accessibility enhancements. Mr. Arroyo answered questions from the Board and confirmed the effort to automatically include anyone already in the New York City Department of Transportation Parking Permits for People with Disabilities program. Mr. Arroyo further confirmed that the goal is to move forward in June with a full roadside toll system, then turned it back over to the chair.

CPC Work Plan

There were no changes to the CPC Work Plan.

President's Report

President Torres-Springer announced the opening of the 3rd fully accessible Metro North Railroad station this year at Purdy's station on the Harlem Line and heralded this month's rollout of 20 new R211 cars featuring open gangway design. Finishing out 2023 reporting, President Torres-Springer pointed out that C&D completed a record over $7 billion dollars of capital work with more on schedule and on budget than ever before.

Turning to Congestion Pricing updates, President Torres-Springer noted that uncertainty surrounding the lawsuits have shrunk C&D's 2024 Commitment Plan to only $2.9 billion dollars, instead of the average of $9 billion per year over the last three years. The President underscored that this represents the bare minimum of work needed to keep the system running, and all investment needed to improve, maintain, and expand the system will be put on hold. Mr. Torres-Springer restated his confidence on the merits of Congestion Pricing scheme, because both the community outreach and 3000-page environmental review were thorough, but while litigation is pending, President Torres-Springer announced that with very few exceptions C&D will not issue any new construction contract solicitations.

President Torres-Springer noted that this will have major impacts. This hold will affect key projects including ADA expansions in all 5 boroughs and CBTC upgrades on the Fulton A/C line in Brooklyn, as well as the 6 Av line across the B, D, F, and M lines throughout 4 boroughs. Also at risk, is another $1 billion in funding for new subway cars, rail cars, and the purchase of 270 electric buses and the installation of charging infrastructure at 10 depots. This will also impact reliability and state of good repair including structural repairs and overcoat painting on the D and F lines in Brooklyn; the 1 line in the Bronx; and the 7 line in Queens; plus, bridge rehabilitation on the 6 line in the Bronx. Railroad projects like water remediation at Atlantic Terminal for Long Island Rail Road and further electrification of the Hudson Line on Metro North Railroad are at risk. More than 20,000 New Yorkers, and 500 minority and women owned and disadvantaged business enterprises depend on these projects for their livelihoods and will be affected by the hold. President Torres-Springer painted a bleak path, the stakes are very high, and the level of investment needed to continue to maintain, improve and expand our system, and make it more accessible, will have to wait until there is no risk from Congestion Pricing funding.

Procurement Actions

Christine Budhwa, Assistant Vice President, MTA C&D, reported that MTA C&D had two procurement actions being brought to the Capital Program Committee this month. Assistant Vice President Budhwa then presented the items.

1. Award of a publicly advertised and competitively solicited contract with Entech Engineering PC (Contract No. CS00019B) for Project Management Consultant services to assist C&D in the administration and oversight of contract VN-PT/VN-12 for painting and miscellaneous lighting improvements at the Verrazzano Narrows Bridge; and,
2. Award of a modification to a contract with National Fire and Safety Solutions, Inc. (Contract No. MN-123441A) for the installation of dampers at five signal houses on the Harlem and Hudson lines.

President Torres-Springer noted that while there is a hold on new solicitations these two procurements are necessary to support previously awarded contracts. Specifically, the first is for a Project Management Contract to support a contract awarded at the end of last year and the second is a change order for about $100,000 dollars.

Upon a motion duly made and seconded, the Capital Program Committee voted to recommend and bring the procurement actions before the full MTA Board.

Refer to the staff summaries and documentation filed with the records of this meeting for the details of these items, and refer to the video recording of the meeting, produced by the MTA and maintained in MTA records, for Board members' and C&D representatives' comments.

Meeting Minutes

Upon a motion duly made and seconded, the Board approved the minutes of the meeting held on January 29, 2023.

Adjournment

Upon motion duly made and seconded, Chairman Lieber adjourned the February 26th, 2024, Capital Program Committee Meeting 2:28 PM.

Respectfully submitted,
Lizzy Berryman
MTA C&D, Contracts

Metropolitan Transportation Authori

2024-2025 Capital Program Committee Work Plan

I. Recurring Agenda Items

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

II. Specific Agenda Items

April 2024
President's Update
Systems & OMNY

May 2024
President's Update
Agency Initiatives

June 2024
President's Update
Rolling Stock
Diversity
Quarterly Traffic Light Report

July 2024
President's Update
Integrated Projects

September 2024
President's Update
Agency Initiatives
Quarterly Traffic Light Report

October 2024
President's Update
Stations

November 2024
President's Update
Railroads

December 2024
President's Update
Bridges & Tunnels
Quarterly Traffic Light Report

January 2025
President's Update
Infrastructure

February 2025
President's Update
Agency Initiatives

March 2025
President's Update
Signals
Quarterly Traffic Light Report

MTA Capital Program Committee Update
Signals & Train Control Projects

March 2024

The Signals & Train Control Business Unit (S&TC) includes Communication Based Train Control (CBTC) projects, such as Crosstown, Queens Blvd West (QBL-W), Queens Blvd East (QBL-E), Culver, and 8 Ave; car upgrades; interlocking and switch replacements; replacement and enhancement of signal systems' reliability and maintainability; technology initiatives; and Superstorm Sandy recovery and resiliency work.

MTA Construction & Development's (C&D) last report to the Capital Program Committee on Signals and Train Control projects was in June 2023.

Major accomplishments since our last report include:

- On the QBL-W Project: Performance has notably improved and Automatic Train Operation (ATO) has been placed in service
- On the Culver Project: CBTC has been placed in service on the first segment and the track work that had been delaying the project is about to be completed

Overall S&TC Business Unit Strategic Updates:

- Twenty-nine active contracts are in design and construction, valued at approximately $7.8 billion; of these, 13 are in construction (including 8 CBTC and CBTC car installation projects)
- Two CBTC projects currently in procurement are on-hold due to the ongoing Congestion Pricing litigation. The next CBTC Project, the Fulton CBTC and interlocking modernization, was due to be awarded in 2023.
- The adoption of a "CBTC Centric" approach continues on the Crosstown CBTC project. This project when completed will substantially reduce the wayside equipment needed with consequent reductions in maintenance requirements.
- As reported at the last committee meeting our focus continues to be improvement of CBTC's Reliability, Availability, and Maintainability (RAM) on existing and future lines to ensure that the performance requirements are achieved. Specifically, much closer attention is given to performance of CBTC during "shadow mode" testing before the system is put in-service.
- The Business Unit is also focused on preparing a) the transition to the 5G IP radio that will require retrofit of the existing fleet and b) the equipment on the work trains. This second initiative will further reduce the wayside equipment that is needed on the right of way with consequent reductions in maintenance requirements.

Queens Blvd Line West CBTC (QBL-W)
S48004-1
S48004-2
S48005

The project provides CBTC from Union Turnpike in Queens through 50 St/8 Av on the 53 St Line and 21 St/Queensbridge on the 63 St Line. The project includes equipping 335 R-160 units with CBTC equipment. It also encompasses development and implementation of the technical foundation of the B-Division Automatic Train Supervision (ATS) that will allow centralized operation similar to ATS-A at the RCC. QBL-W is the first interoperable CBTC project implemented for NYCT, allowing trains with CBTC to run on the same line at the same time with carborne and wayside CBTC equipment from different suppliers (Siemens and Thales).

This project will also provide the Automatic Train Supervision system for the B Division (ATS-B).

PROJECT STATUS	Original	Forecast
In Service CBTC	March 2021	February 2022 (actual)
Budget	$663.1M	$757M
LK Comstock (installer): 99% complete **Siemens: 98% complete** **Thales: 96% complete**		

The project has already placed CBTC into service on all sections, with the last section placed into operation in February 2022. ATS-B is also in service, however the completion of some features prevents the transfer of operation to ATS-B at the RCC.

The team continues performance monitoring of the fleet stability and maintainability which continues to improve through software upgrades. Further updates to Siemens software will occur in multiple waves in 2024 to address shortfalls in availability and reliability targets as per the plan established with Siemens executive management last year.

It is anticipated that ATS-B work will be completed in 2024 for the QBL-W project but recent technical setbacks have arisen that need to be addressed to enable the system to be expandable and adopted by the other CBTC projects. MTA and Siemens are working together to address these technical issues.

Automatic Train Operation (ATO) was placed in service in March 2024. Thales R-160 trains were put into revenue service – The demonstration of R-160 interoperable train operation by Thales is an important milestone necessary to build confidence in the software of multiple suppliers in an interoperable environment.

8 Av Line CBTC
S48006
S32400
M44436
S48013-1
S48013-2
S48015
S48016
S87055

The project will provide CBTC from 59 St in Manhattan through High St in Brooklyn. The program also includes providing CBTC equipment to the existing R-179 vehicles and CBTC equipment to support the manufacturing of the R-211 vehicles. The 8 Av Line has three services (A, C, E) and carries more than 710,000 daily riders (pre-COVID).

PROJECT STATUS	Original	Revised	Forecast
Substantial Completion	January 2025	January 2025	June 2026
Budget	$735M	$878.2M	$873.1M
The project is approximately 84% complete *Revised to include additional scope for Flushing Line signal removal work and R-211 option 1 (640 additional cars)			

This project builds on the technology introduced in previous CBTC projects, notably the CBTC interoperability achieved on the QBL-W project, and, for the first time, introduced axle counters, in lieu of track circuits, to improve reliability and reduce maintenance and related life-cycle costs. Axle counters will also allow CBTC testing before the cutovers, reducing the cutover duration and associated risks.

Additional work orders were issued for removing decommissioned signal equipment on the Flushing Line and for CBTC equipment to be installed on the additional R-211 trainsets that have been ordered under a separate Kawasaki contract.

The project is approximately 84% complete, based on payments. The prime contractor (LK Comstock) continues to work diligently with the C&D project team to resolve project issues as they arise.

The 8th Ave wayside project was delayed, as previously reported in the last committee meeting, to ensure that the contractors have proper control over the safety and the risk associated with the first in-service interlocking. The first interlocking in-service is projected in Q3 2024.

The CBTC operation on 8th Ave will rely on existing R160 cars, newly CBTC equipped R179 cars and new R211 cars:

- Equipping the R179 with CBTC is complete. Some interface issues are being addressed prior to revenue service.
- Equipping the R211 is progressing as part of the R211 delivery process. The latest software version will be authorized for revenue service shortly.

Culver Line CBTC
5-47009
S-32398
S-32399
M-44431
S-87055

Culver Line signal modernization will improve reliability and resiliency of service between West 8 St and Church Av in Brooklyn by modernizing signals, upgrading interlocking systems and constructing new equipment facilities within stations. The new signaling system will employ CBTC and add three new signal facilities at Ditmas Av, Bay Pkwy, and Avenue X. This project will improve service along 4.7 route miles of subway track for 12 subway stations. This project includes significant special trackwork on the elevated structure.

Unlike the QBL-W project, which includes separate contracts for suppliers and installers, this project adopted a single combined contract for the installer and supplier. Tutor Perini was selected in 2019 as the primary contractor and installer, with Siemens as their CBTC supplier for signaling and CBTC technology.

PROJECT STATUS	Original	Forecast
Substantial Completion	August 2022	October 2024
Budget	$482M	$469.3M
The project is approximately 93% complete		

The special trackwork at Ditmas Ave has been completed and the work at Avenue X is progressing well.

All the interlockings have been placed in service. A first CBTC section has been successfully put in revenue service after several delays caused by software/database issues. . The contractor has demonstrated that actions have been taken to ensure the success of the subsequent cutovers and we are getting to complete the CBTC in-service for the next 4 sections.

Queens Blvd Line East CBTC (QBL-E)
S48010
S48017
S87055
S81304

The project will provide CBTC systems from north of Union Turnpike to 179 St Station on the Queens Blvd (Hillside Av) Line (F). The new signal system shall be CBTC with SSI and ATS. Axle Counter Systems (ACS) shall replace track circuits north of Union Turnpike Station to 179 St Station.

Under this project, four interlockings will be modernized: 179 St, 169 St, Parsons Blvd, and Briarwood.

PROJECT STATUS	Original	Forecast
Substantial Completion	Q2 2026	Q2 2026
Budget	$540.3M	$540.3M
Installer (EJ Electric) – 36% complete **CBTC Supplier (Mitsubishi) – 40% complete** **DCS (Siemens) – NTP issued 4/19/2023**		

Three separate contracts have been awarded to deliver the project: installer, CBTC supplier and the DCS.

This project will further expand the interoperability demonstration from two to three CBTC suppliers (adding Mitsubishi to Siemens and Thales).

The existing Siemens CBTC system on QBL-W and the new Mitsubishi CBTC System on QBL-E will interchange at Union Turnpike Interlocking. This interchange is an area of special attention to ensure a smooth transition between the two interoperable systems.

The work in the field, including special trackwork, has progressed significantly with the first interlocking in-service scheduled in Q4 2024. Mitsubishi progress is nominal for CBTC in-services in 2025.

Crosstown Line CBTC
S-48012
S-32476
C-31300

This is the first CBTC project advanced using Design-Build and encompasses the design, installation, testing, and commissioning of a CBTC signal system on the Crosstown Line (G) from Court Square in Queens to Church Avenue in Brooklyn. In addition, this Contract also provides for track replacement work on portions of the Crosstown Line and construction of new/or renovation of existing facilities to serve as train control rooms and house equipment for the new CBTC.

This Train Control System ("TCS") is based on the Interoperable Interface Specifications ("I2S") compliant CBTC solution already deployed on NYCT infrastructure and can operate with CBTC-equipped trains and with the existing NYCT ATS system deployed on the "B" Division with the following significant changes:

- Replacement of track circuits with an Axle Counter System
- Removal of the requirement for an underlaying Auxiliary Wayside System ("AWS")
- Conversion of '733' typical circuits into software-based interlocking functions integrated with the CBTC

The scope of Design-Build contract includes:

- Wayside Construction and Installation: track modifications, switch machine replacement and CBTC equipment and infrastructure installation, including wayside train stops and 5G radio technology for CBTC Data Communication System (DCS)
- Station Work: construction of new rooms and modifications of existing Train Control Rooms ("TCRs"), Battery/UPS, Fire Suppression, MEP, Interface with existing station areas including Electrical Distribution Rooms ("EDR"), communication rooms, and upgrade to the HVAC system as needed
- Providing of an Enhanced Integrated Test Facility (EITF) for all CBTC Centric projects.

The project budget also includes funding for a change order to replace the Greenpoint Tube discharge line, which was originally to be done under a separate project in the 2020-24 Capital Plan.

PROJECT STATUS	Original	Forecast
Substantial Completion	Q3 2027	Q3 2027
Budget	$633.1M	$632.6M
TC Electric/Thales/AECOM (Crosstown Partners) Design-Build Team **The project is approximately 25% complete**		

The project is in design phase that is progressing. Field work has started with the installation of the cable management system and the preparation work for the track work coming this summer.

Risks and challenges to the project include unanticipated additional trackwork; ongoing flagging shortages, which have the potential to impact field work; MTA-provided items, including software from other CBTC projects, which may have an impact on the progress of design; dependencies with 5G design and carborne equipment modification required to interface with the IP 5G radio, for which separate procurements have been identified; and the risks associated to new aspects of this project (e.g., the block design is provided by the DB Contractor for the first time) .

March 2024 CPC
Independent Engineering Consultant
Project Review

IEC's Summary Review of the Signals & Train Control Business Unit

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CBTC Projects Summary

CBTC Projects Summary

The IEC monitors the Signals & Train Control Business Unit through cost and schedule analysis of the projects published in the quarterly Traffic Light Report (TLR) and through more comprehensive risk-based monitoring of individual projects included in the CBTC Program.

CBTC Program History

The Communications Based Train Control (CBTC) Program commenced in the late 1990s to continue with the modernization of existing signal installation with the ultimate objective of achieving a state of good repairs. Other objectives of the program included:

- Enhancing safety of operation through the implementation of continuous overspeed protection and reduce reliance on operating rules and procedures,
- Increase line capacity by reducing the operating headway,
- Increase operation flexibility and improve on-time performance,
- Enhance passenger comfort through the use of Automatic Train Operation, and
- Reduce wayside equipment in order to decrease capital and maintenance costs.

The technical approach for the CBTC Program was focused initially on maintaining interoperability between various transit lines by supporting mixed fleet operation under signal protection. Equipped trains operated under CBTC control and modernized interlocking installations were leveraged to provide signal protection for unequipped and failed trains. Since the inception of the program 3680 Division B cars were and/or being equipped with CBTC, and 137 track miles were or are being modernized using this technology.

Recently, the MTA has adopted an initiative to streamline the CBTC Program through the implementation of a CBTC Centric Approach. Under CBTC Centric, a highly centralized and integrated architecture is used to further reduce wayside and room equipment and to take advantage of new innovations in the train control field. Other objectives of CBTC Centric, is to enhance the CBTC communication subsystem through the use of 5G technology and to maintain interoperability with other CBTC systems.

CBTC Projects Summary

CBTC Program Status:

The CBTC Program currently includes five (5) active projects (7 contracts).

The original CBTC technical approach is being implemented on four (4) lines (Legacy CBTC Projects):

- QBL West (3 contracts),
- Culver,
- 8th Ave., and
- QBL East.

A pilot installation of the CBTC Centric approach is being provided on a fifth line:

- Crosstown.

Since our last report to the Board in June 2023, measurable progress was made on the legacy CBTC projects. Technical issues are being resolved and CBTC installations in passenger service are achieving a higher level of stability. However, two out of the four legacy CBTC projects and one QBL West contract are experiencing substantial delays with a total overrun in budget of $20M. The fourth legacy CBTC project (QBL East) is progressing on schedule and within budget. The root causes for the schedule and budget impacts include the following:

- Technical issues impacting communication between trains and CBTC wayside installations and the operation of CBTC equipped trains,
- Poor performance on the part of contractors related to critical projects activities, including track work, manufacturing and delivery of signal cable, adhering to the requirements of system safety certification process and the need for repeated software revisions, due to lack of adherence to standard software processes.
- Design issues uncovered in the Axle Counter System (ACS),
- Delays in providing final track geometry data to the CBTC suppliers, and
- Slow progress in the development of the Automatic Train Supervision system for Division B (ATS-B).

CBTC Projects Summary

CBTC Program Status (Cont'd):

With respect to the pilot CBTC Centric Project on the Crosstown Line, the project is facing a different set of challenges that could impact budget and schedule:

- The main objective of the CBTC Centric initiative is to minimize wayside and room equipment. To achieve this objective without impacting safety and flexibility of train operation, a very high level of reliability/availability is required in all system elements. Some of the system elements are existing and are not under the control of the Crosstown contractor. These include on-board CBTC equipment and the ATS subsystem. If the high level of reliability/availability is not achieved, it could result in service impacts, operational constraints and more reliance on operating rules and procedures (Human Factor) during the operation of manual trains. C&D has recognized this challenge and has taken measures to achieve RAM requirements on the legacy CBTC projects.
- The scope of work for the Crosstown CBTC Centric project does not include equipping the B Division fleet with 5G communication equipment. The program envisioned separate contracts/task orders to Siemens and Thales to equip their respective trains with 5G, with appropriate design to switch between 5G radio and the original CBTC radio. Such contracts/task orders have not yet materialized and the delay in equipping the B-Division fleet with 5-G is likely to impact the Crosstown project.
- The highly integrated approach for CBTC Centric requires extensive modification of existing legacy CBTC software as well as new software development. In the IEC's opinion, the Contractor's planned duration of software activities will have to be increased to successfully complete this task.

CBTC Projects Summary

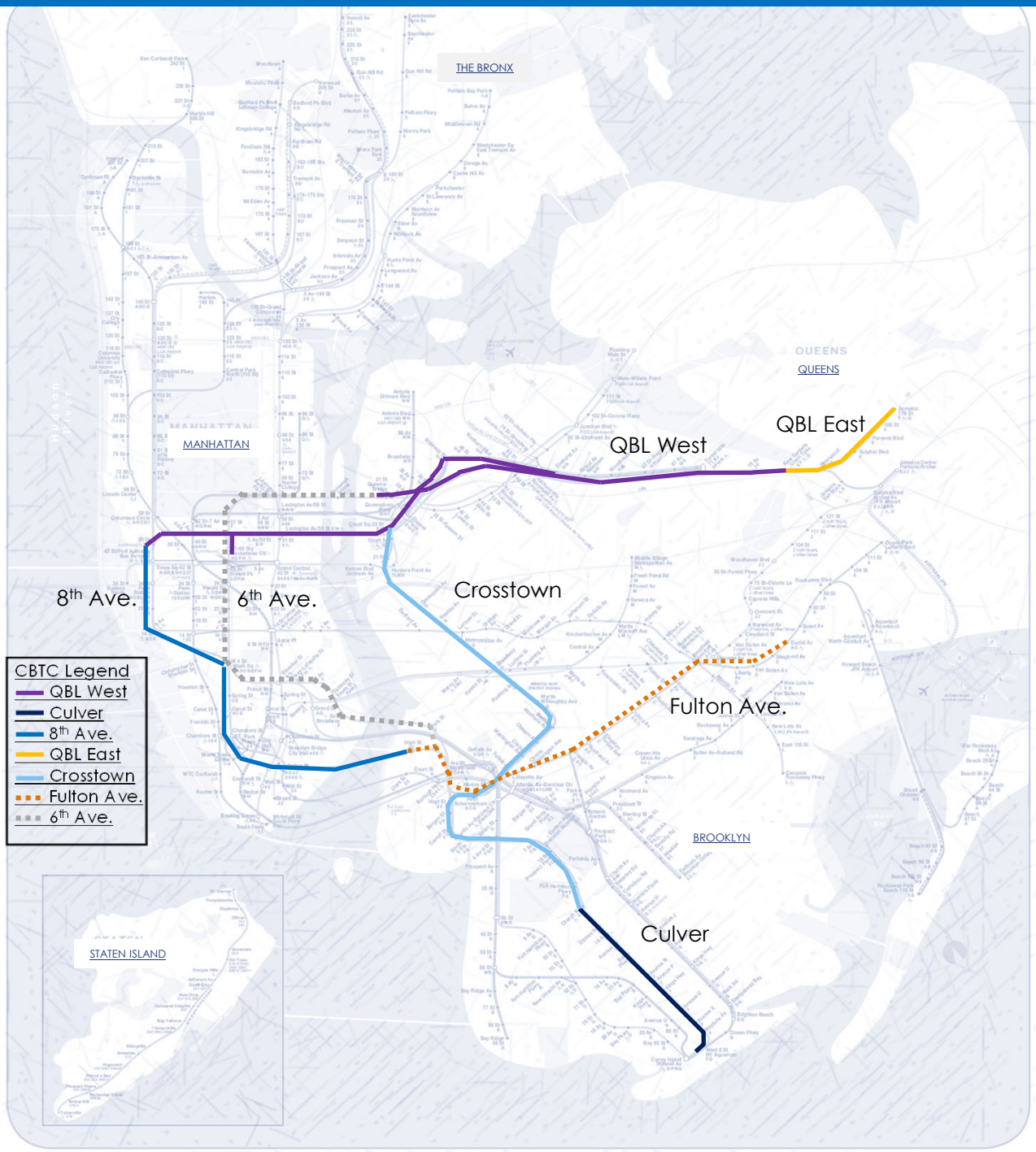
CBTC Program Status (Cont'd):

- This is the first design-build CBTC project. One of the tasks delegated to the Crosstown CBTC contractor is the development of a Block Design for interlocking and wayside signal installations. The block design forms the basis for CBTC Centric system and software development. Inherent in the block design are detailed interlocking requirements that need extensive input from the operating department (Service Delivery). Currently, the block design is almost one year behind schedule. Four versions of the design were submitted and more revisions and reviews to finalize approval of the design are anticipated.

Moving forward with the CBTC Centric Program, the delegation of the block design to a Design-Build (DB) Contractor creates a challenge to the MTA in terms of maintaining a consistent operating environment throughout the transit system. Inherent in a DB project is leveraging the contractor's resources for innovative design ideas. However, contractors on different DB projects could provide different design approaches that risk maintaining a consistent operating environment. In the IEC's opinion, to address this challenge, it is important that the specifications for future CBTC Centric projects include detailed requirements for the development of block design to ensure consistent operating environment and that core operational needs are met.

The IEC is discussing the above challenges with the Crosstown CBTC Project Team and has proposed mitigations to reduce the risk to the CBTC Centric Program.

CBTC Projects Locations



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CBTC Scope Summary

Scope

(Contract) Package	# of Interlockings	Scope	Contractor/ DB JV
QBL West Phase 1 Phase 2	9	• Phase 1: Design, supply, test, and commission CBTC • Phase 2: Supply and installation of the Auxiliary Wayside Systems (AWS) and CBTC Wayside systems, and removal of existing wayside signal equipment • Queens Boulevard Line from North of Union Turnpike to south of 47-50th Street on the 6th Ave Line(F)and to 50th Street on the 8th Ave Line (E).	Phase 1: Siemens Thales Phase 2: LK Comstock
Culver	4	• Design Bid Build contract • CBTC Legacy • CBTC and Auxiliary Wayside System (AWS) • Automatic Train • CBTC carborne equipment for R179 trains • 3 new relay rooms • Trackwork, special trackwork	EJ Electric 5 Star Siemens
8th Ave	5	• Design Bid Build contract • Modernize the 34th Street and 42nd Street interlockings • CBTC Signal System Overlay • 8th Avenue Line from 59th Street in Manhattan to High Street in Brooklyn. • Axle Counter System (ACS) in lieu of track circuits for secondary train detection • Tie-in to CBTC-QBL West installation at the 50th Street station. • R-160 trains that were equipped by Siemens on the QBL West CBTC Project, the R-179 and R-211 cars will operate on the 8th Avenue Line. The R-179 cars are being equipped for CBTC by Siemens and the R-211 by Thales.	LK Comstock Siemens Thales

CBTC Scope Summary (Continued)

(Contract) Package	# of Interlockings	Scope	Contractor/ DB JV
East	4	Design Bid Build contract to • CBTC and Auxiliary Wayside System (AWS) • Build 4 relay rooms at existing stations • Solid State Interlocking (SSI) at all 4 interlockings • Automatic Train Supervision(ATS) for East territory • Axle Counter System (ACS) • Data Communication System (DCS) • Queens Blvd Line from north of Union Turnpike to the 179th Street Station on the Hillside Ave. Line (F)	E-L Electric/ Mitsubishi/ Siemens (DCS)
Crosstown	6	• G & F lines Court Square station to Church Avenue station and divided into two (2) sections • 5G Technology • Enhanced Integrated Testing Facility • Wayside Train Stops	Thales/TC Electric

CBTC Projects Summary

Schedule

Contract	Award Date	Duration	Substantial Completion (SC)		
			Original	Project's Current Forecast	IEC Forecast
QBL West – Ph 1 (Siemens)	08/2015	67 months	03/2021	12/2024	12/2024
QBL-West Ph 1 (Thales)	08/2015	67 Months	03/2021	08/2022	08/2022
QBL West - Ph 2 (LK Comstock)	12/2016	67 months	07/2022	07/2022	07/2022
Culver	02/2019	42 months	08/2022	10/2024	12/2024
8th Ave	01/2020	60 months	01/2025	06/2026	10/2026
QBL East	12/2021	55 months	06/2026	06/2026	06/2026
Crosstown	01/2023	54 months	07/2027	Q3 2027	Q4 2027

- IEC forecasts that 4 contracts will be delayed:
  - QBL West-Phase 1 has 45-month overall delay to Substantial Completion.
  - Culver has an overall 36-month delay to Substantial Completion. A pending Extension Of Time (EOT) request may further impact overall SC.
  - 8th Ave has an overall 17-month delay to Substantial Completion.
  - Crosstown Substantial Completion is forecast to be delayed until Q4 2027.

CBTC Projects Summary

Budget

Projects	Current Budget	IEC Forecast Project EAC	IEC Forecast EAC Within Budget
QBL West	$734M	$752M	No
Culver	$482M	$475M	Yes
8th Ave	$878.2M	$836M	Yes
QBL East	$540.3M	$542M	No
Crosstown	$633M	$638M	No

- The IEC forecast budget overruns on 3 of the 5 projects
  - QBL West requires a $18M budget modification to cover TAL and EFA overruns.
  - QBL East is projecting a $2M budget shortfall due to overruns in soft costs.
  - Crosstown overruns are primarily due to unanticipated track scope.
- Although Culver Project is within budget, this may change once commercial issues are finalized.

March 2024 CPC
Independent Engineering Consultant Project Review

Queens Blvd. Line (QBL) West Communications Based Train Control (CBTC) Design, Furnish & Install Project

MTACD Signals & Train Control Business Unit

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QBL West CBTC

Scope

The QBL West Communications Based Train Control (CBTC) project provides design, material, and labor for a complete CBTC signal system overlay on the Queens Boulevard Line from north of Union Turnpike to south of 47-50th Street on the 6th Avenue Line (F) and to 50th Street on the 8th Avenue Line (E) and Centralized Traffic Control through an Automatic Train Supervision System (ATS).

The project validates the evolving Interoperability Interface Specifications (I2S) in revenue service operation.

Three contracts were awarded in 2015-2016. Phase 1 is the design, supply, test, and commission of the CBTC system and Phase 2 is the supply and installation of the Auxiliary Wayside Systems (AWS) and CBTC Wayside systems, and removal of existing wayside signal equipment. Siemens and Thales were awarded Phase 1 (Thales provides 1 Zone Controller and 4 sets of Onboard Computer Units) and L.K. Comstock (LKC) was awarded Phase 2. SYSTRA is the Technical and Engineering Consultant. Parsons is the Project Management Consultant (PMC).

After award, the MTA C&D expanded the scope to include:

- The supply and installation of CBTC equipment for 13 R-160 trains to be used on the 8th Avenue CBTC Line. (This scope was funded by the CBTC 8th Ave Contract.)
- The design and supply for a software Remote Upload System (RUS) from the Wayside equipment to the on-board Carborne Controllers (CCs).
- Under an Additional Work Order (AWO), ATS covers the entire B-Division (called ATS-B) and interface to the Large Screen Displays in the Rail Control Center (RCC), initially designed to monitor and control train service only in the QBL CBTC territory. Siemens is also providing ATS Extension tools, including documentation and training, to MTA for contractors to use for their CBTC project's territories and user interface graphics.

QBL West CBTC

Schedule

- The project began CBTC operation in February 2022, on the entire QBL West line, one year later than the baseline schedule, due to unresolved technical issues during CBTC in-service cutover in various sections.
- The contractual Substantial Completion (SC) date was March 2021 for the Design and Furnish contracts.
  - Thales achieved SC in August 2022.
  - Siemens was granted a time extension to achieve SC by December 2024, a slip of 12 months from our last report to settle commercial issues and allow CBTC software updates to achieve system stability.
- The IEC's opinion is that December 2024 is an achievable date providing no new defects are identified.
- LKC (the Install Contractor) achieved SC on schedule in July 2022 and complete all punch list items in December 2023.
- Completing all the ATS functions for the entire B-Division, is now forecasted by the Project Team in 4th quarter of 2024, up to 9 months later than the June 2023 report, caused by longer than planned software development and testing.

QBL West CBTC

Budget

- The budget has been increased by $14M to $734M due to an overrun in Transit Authority Labor (TAL) and Engineering Force Account (EFA) costs, and settlement of outstanding commercial issues. The Project's Estimate at Completion (EAC) is $747M. A budget modification will need to be approved.
- The IEC forecasts the EAC to be $752M, based on the December 2024 Substantial Completion (SC).

QBL West CBTC

Observations

- As a follow-up to our last report in June 2023:
  - Issues encountered during revenue service for the Thales equipped trains have been resolved and the trains are back in revenue service.
  - Siemens made hardware/software modifications in its ZC, CC, and Data Communications System (DCS), which have improved system performance and have made progress toward achieving stability, and additional changes will be made in 2024 to resolve remaining technical issues.
- The Project Team is reporting that the ATS software continues to be delayed due to challenges encountered with redundancy issues in the Programmable Logic Controllers (PLCs) units causing intermittent loss of communications between ATS and PLCs.
- An SSCB meeting was held on February 27, 2024, to authorize Automatic Train Operation (ATO). ATO commenced in early March 2024, Service Delivery is operating ATO with progressive ramp up the number of trains
- Operational performance contract requirements (throughput, headway, and runtime) has not been validated.
  - There is a constraint to perform this test due the availability of Train Operators needed and GO to stage the trains on the right of way.
- Successful completion of CBTC QBL West program is critical to the success of other CBTC programs, including Culver, 8th Ave., QBL East, and Crosstown, and more specifically:
  - QBL West is the proving ground for the Interface and Interoperability Specifications (I2S) that form the basis for the design of CBTC installations at the other projects,
  - The R-160 trains were equipped with on-board CBTC units under QBL West. These trains must achieve a stable CBTC operation to avoid impacting the remaining CBTC projects,
  - The ATS subsystem is being developed by Siemens under QBL West, and will be expanded to control the entire B Division,
  - The ZC software developed by Siemens and Thales under QBL West form the basis for software development on the Culver, 8th Ave. and Crosstown CBTC projects.

QBL West CBTC

Concern

- Although progress has been made, the CBTC suppliers have not yet met the Reliability, Availability, and Maintainability (RAM) contract requirements. The RAM compliance is important to achieve stability as well as to meet operational requirements.
- In the IEC's opinion, the software delivery schedule indicates that the December 2024 SC may be delayed.

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Culver Communications Based Train Control (CBTC) Design, Furnish & Install Project

MTACD Signals & Train Control Business Unit

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Culver CBTC

Scope

The contract was awarded to Tutor Perini Corporation (TPC) in February 2019, with a duration of 42 months (to August 2022), to provide the Culver Line from the Church Avenue station to the West 8th Street station with a Communication Based Train Control (CBTC) system.

The project also includes:

- The construction of 3 new relay rooms at Avenue X, Ditmas Avenue, and Bay Parkway as well as modernization and commissioning of the interlockings associated with these relay rooms.
- The support and replacement of track work and certain portions of Church Avenue, Avenue X, and Ditmas Avenue and a CBTC system overlay between West 8th Street and Church Avenue, on the Culver Line.
- Installation of Special Track Work in Avenue X and Ditmas Ave areas
  - All R-160 trains operating on the Culver Line have been fitted out under the QBL West Program
  - The Culver CBTC project is dependent on QBL West for all Carborne Controllers (CCs), Zone Controllers (ZCs), and wayside radio communication system software. Culver databases are specific to this program.
- The CBTC system will be placed in service in 4 sections: South - S1 and South - S2 and North - N1 and North - N2.

Culver CBTC

Schedule

- As of our last report in June 2023, the contractor had forecasted an August 2024 Substantial Completion (SC) date, a delay of 24 months from baseline, primarily due to the impact of having to re-fabricate track ties. In addition, there are delays in commencing CBTC Cutover in the Section S1 from November 2023 to March 2024 as previously reported.
- Current Project forecast for SC is October 2024. The additional delay in SC is due to further delay in the cutover of Section S2.
- The IEC forecasts that SC will be pushed out further to at least December 2024 due to:
  - Delay in commencing CBTC in-service testing,
  - Inability of Siemens to fully test the remote downloading of software and databases, which is not a requirement under the Culver contract, but the IEC believes that is an important feature to ensure all Carborne Controllers (CCs) have the latest SW and database, to minimize service interruptions,
  - Software defects associated with CCs on the R-160s, and
  - The compressed schedule for the CBTC Culver in-service cutovers may not provide enough time for resolving database errors.

Culver CBTC

Budget

- The project's Budget is $482M and remains the same since contract award. The current Estimate at Completion (EAC) is $470M.
  - In the opinion of the IEC, the EAC could increase to $475M based on 2% risk on remaining work, but still within the overall project budget. However, there is a risk that the EAC may increase further due to ongoing commercial issues.
  - On average, the third-party construction task orders are 91% complete based on payments to date across 4 contracts as illustrated in the following table:

Contract Description	Construction Budget	Complete
CBTC	$47M	94%
Avenue X	$116M	92%
Ditmas Avenue	$78M	93%
Switch Machines	$31M	77%
Third Party Construction at award	**$272M**	**91%**

Culver CBTC

Observations

- Culver CBTC in-service testing and commissioning is scheduled to begin with Section S1 in March 2024, previously November 2023, which further compresses the CBTC in-service testing schedule. However, the Contractor has found some defects in the database configuration in Section S1 which required a slow speed order (SSO) to be implemented.
- Following a recommendation by the IEC and as identified as a risk in the June 2023 CPC report, Radio Frequency (RF) testing has been carried out indicating where RF interference was an issue. With this information, the Contractor will be able to mitigate against the interference.
- The Contractor continues to provide new system software on the QBL West system, which is resulting in improved system reliability and performance which bodes well for CBTC in-service testing in the Culver Project.

Culver CBTC

Risks

- The current CBTC testing and commissioning schedule is dependent on availability of diversions and General Orders (GOs).
  - As a mitigation, the contractor has established an annual GO schedule that has been approved by NYCT Operation Planning. The Project Team continues to review the GO schedule to ensure that it remains valid.
- Remote uploading of database and software updates still have not been deployed on QBL West program. If these functions are not provided by the start of CBTC testing under Culver this may impact in-service schedule.
  - To mitigate this risk the Contractor manually downloads database changes when trains are in the Yards. However, there is a risk that not all trains will have the latest database when entering the Culver line which could impact service.
- CBTC in-service testing for the entire Culver Line has been reduced from 13 months to 4 months due to the delayed start on CBTC testing in Section S1. This compression duration may likely increase risk to conduct sufficient testing of the Culver databases.

Recommendation

- MTA C&D and the Project Team should ensure that the CBTC System is fully stable when operating at line speed Section S1 before attempting to move to Section S2.

March 2024 CPC
Independent Engineering Consultant Project Review

8th Ave Communications Based Train Control (CBTC) - Design, Furnish, & Install Project

MTACD Signals & Train Control Business Unit

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8th Ave CBTC

Scope

The project scope consists of supply and installation of a Communications Based Train Control (CBTC) system on the 8th Avenue Line from south of the 59th Street interlockings in Manhattan to High Street Station in Brooklyn.

The new CBTC system ties into the Queens Boulevard Line (QBL) at 50th Street Station

This project includes replacement of the 30th Street and 42nd Street North interlockings with processor-based (solid state) signals, the decommissioning of the 42nd Street South interlocking, and interfacing with the interlocking at West 4th Street.

It includes the design, supply, and installation of an Axle Counter System (ACS) which will replace the traditional track circuits. The Automated Train Supervision (ATS) system will be enhanced to monitor the ACS.

Also, the project is responsible for the supply, installation, and delivery of carborne systems for the R-179 and supply and delivery of Carborne Controllers (CCs) for the R-211A/T subway cars. Installation of the CCs for the R-179s is done by Car Equipment and Siemens. The R-211A/T installation is done by Kawasaki and Thales. The supply of Data Communication System (DCS) equipment is through NYCT via a separate contract and the installation and testing of the DCS equipment is by L.K. Comstock (LKC) and Siemens.

MTA C&D exercised two options to purchase 224 onboard computer equipment for the R-211A Option cars has been added to the project scope.

AECOM is the Project Management Consultant (PMC) for this project.

8th Ave CBTC

Schedule

- The contract was awarded to LKC as the prime contractor in January 2020 with Siemens providing the Auxiliary Wayside Systems (AWS) and CBTC Wayside Equipment. The contract duration was 60 months, resulting in Substantial Completion (SC) in January 2025.
- Third party construction for the total project as of February 28, 2024, is now 68% complete by invoice with 81% of the contract time elapsed.
- As of the IEC's last CPC report in June 2023, Signals and Train Control forecasted SC in October 2025. The contractor's current forecast for SC is June 2026, an additional delay of 8 months since our last report and a total delay of 17 months.
  - The 42nd Street interlocking in-service milestone remains on the schedule's critical path. The last reported forecast to the Board for this milestone was November 2023 as compared to the current forecast of August 2024 (8 months delay). Contributors to this delay are the delayed availability of permanent power, unavailability of IP addresses, ACS design issues, track monitoring connections, commissioning of fire alarms, and tie-in at 50th Street to QBL West.
- In the opinion of the IEC, in service cutover duration is insufficient to support the June 2026 date and most likely SC will be delayed until October 2026.
- The CBTC contractor's forecast for the start of CBTC commissioning is dependent on the acceptance of all 430 R-211A cars by August 2025. Current car delivery forecasts meet this requirement, however numerous technical issues are outstanding. These are being managed by C&D.

8th Ave CBTC

Budget

- Since the June 2023 report, the budget has increased by $50M to $878M with an EAC of $836M, which is confirmed by the IEC.
  - The budget increase is due to the addition of 96 CBTC On Board Computer Units (OBCUs) for the R-211A vehicles contracted to Thales and was split as follows:
    - Purchase of OBCUs and DCS $13M.
    - A Reserve of $37M was added to the Option 2 contract.
- The budget at award was $485M, but the scope and associated costs has increased with the addition of:
  - Flushing Line Signal Removals which added $25M and
  - Equipping the R-160s, R-179s, and R-211s with CBTC On Board Computer Units which added a total of $203M and were funded from external contracts.
  - A Risk Reserve of $135M was added to the project after contact award to cover unforeseen costs associated with track work and risk-related items, which were funded out of the 2020 to 2024 Capital Program.
- Based on the IEC review of the remaining work, project expenditures to date, contingency, reserves, soft costs, commercial issues, change orders and time impact and costs, the IEC agrees that there are sufficient funds in the budget to complete the project.

8th Ave CBTC

Observations

- The contractor completed the replacement of I/O boards at all 8th Ave Project ACS installations to resolve a hazard detected by the safety group. However, commercial terms are still being negotiated.
- As reported in June 2023 CPC, there is still an interface issue between the Siemens onboard equipment and the Alstom car communications network for the R-179. Siemens is attempting to provide work arounds to allow for required pre-service testing prior to in-service operations.
  - The R-179 remaining software and onboard network communications issues are pending resolution.
- After some initial delays Thales are now able to complete static and dynamic testing in Nebraska of the R-211 OBCUs and cars are arriving in NY ready for Site Acceptance Tests.

8th Ave CBTC

Concerns

- Tests performed on the ACS, revealed that false block occupancy occurs when a Track Geometry Car (TGC) operates within the ACS territory. C&D is developing a mitigation for this issue. The IEC is concerned that if the TGC issue is not resolved prior to placing the interlockings at 42nd Street and 34th Street in service, operation of TGC in this territory could adversely impact service.
- The IEC is concerned about the delay in performing radio interference testing as a proactive measure to avoid potential communication issues similar to those encountered on QBL West. The IEC made this recommendation in April 2022 and was accepted by the Signal and Train Control Team.
- As indicated on the Schedule slide, there are several unresolved issues that have impacted the commissioning of 42nd Street. If these issues are not addressed in a timely manner, they could further impact the schedule.
  - This is a critical milestone to begin in-service evaluation of the ACS operation.

8th Ave CBTC

Risks

- Stability and performance issues for the R-179 and R-211 are a critical risk to the project.
  - In mitigation the project team should identify performance metrics and allow for extended cutover testing.
- This is the first installation of ACS in NYCT operating environment. While the contractor and Project Team have identified mitigations to known ACS issues, any new ACS issues that occur after system commissioning could impact project schedule and budget.
  - In the opinion of the IEC, until 42nd Street relay room is placed in service this risk cannot be mitigated.
- Flagging protection and/or diversions to support future construction activities and CBTC testing continue to be a cost and schedule risk to the project.
  - The project team, NYCT Operations Planning, and the contractor meet regularly to coordinate the project needs for NYCT services.
  - In the opinion of the IEC, this mitigation is reasonable. While General Orders (GOs) are still being cancelled, the close coordination with NYCT Operations Planning has minimized the impact on project schedule.
- The current CBTC Cutover Plan includes 13 stages to be completed in 6 months there is a risk that additional time maybe required for performance evaluation after each commissioning stage.
  - There is no mitigation for this risk since allowing more time between stages will impact the schedule.

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Queens Blvd. Line (QBL) East Communications Based Train Control (CBTC) Design, Furnish & Install Project

MTACD Signals & Train Control Business Unit

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QBL East CBTC

Scope

This project includes three individual contracts; system integrator and supply and furnish of Communication Based Train Control (CBTC) wayside equipment contract awarded to Mitsubishi and an Auxiliary Wayside System (AWS) furnish and install contract awarded to E-J Electric, which included the installation of a Data Communications System (DCS) supplied by Siemens under a separate task order.

- This is Mitsubishi's first major CBTC project with MTA and will provide CBTC service from Union Turnpike to 179th Street.
- Hitachi is supplying the AWS under the E-J Electric contract.

The project replaces the existing fixed block relay-based signal system from north of Union Turnpike to the 179th Street Station on the Queens Blvd Line (Hillside Ave. Line (F)) with CBTC system. The new system will also include Solid State Interlockings (SSI) and Automatic Train Supervision (ATS). The CBTC Zone Controllers (ZCs) will be integrated with an AWS installation that will provide signal protection during degraded modes of operation. An Axle Counter System (ACS) will replace track circuits north of Union Turnpike (UTP) Station to 179th Street Station.

- Under this project the following four (4) interlockings will be modernized:
  - 179th Street
  - 169th Street
  - Parsons Blvd. (at Hillside Ave.)
  - Briarwood
- As part of the project's scope, ATS, originally provided in the QBL West project, will be reconfigured by Mitsubishi to include the QBL East territory, using ATS Expansion Software Tools from Siemens provided through the MTA.

QBL East CBTC

Schedule

- The Integrated Project Schedule (IPS, Data Date 02/01/2024) forecasts an on-time Substantial Completion (SC) of June 2026 for both contracts, 5 months after the in-service date of January 2026 to provide time for CBTC System performance testing.
- The IEC concurs with the Project Team's forecast.

QBL East CBTC

Budget

- The project's Budget is $540M with an Estimate at Completion (EAC) of $542M and remains the same since our last CPC report in June 2023. The budget has remained the same since contract award. The budget breakdown per contract is as follows:

Project Description	Contractor	Budget	EAC
Installer	E-J Electric	$441M	$443M
CBTC Supplier	Mitsubishi	$89M	$89M
DCS Supplier	Siemens	$10.8M	$10.8M

- The Project is projecting a $2M budget shortfall due to overruns in soft costs.
- The IEC concurs with the project's current budget and EAC forecast.

QBL East CBTC

Observations

- Mitsubishi has performed well to date, and its technical team has demonstrated a good understanding of the MTA C&D requirements and working in the NYCT environment.
  - Effective Risk Assessment Workshops and monthly updates to the risk register are occurring regularly.
  - Mitsubishi completed the Zone Controller Factory Acceptance Test (FAT) in Japan, in June 2023, with no failing test cases.
  - Mitsubishi's draft Requirements Traceability Matrix (RTM) is being used to identify FAT test cases.
- Currently, the ZCs handle up to 24 trains at one time that will not support peak vehicle demand.
  - In mitigation, Mitsubishi has been requested to investigate upgrading their CPUs to increase the capacity of their ZCs to beyond the current 24 trains.
  - C&D is investigating 3 options to resolve the ZC capacity issue at Union Turnpike. Depending on what option is selected, there could be an impact on schedule and budget.
- The Axle Counter System (ACS) provided on this project is the same system used on 8th Avenue CBTC Project. As reported in June 2023 CPC, the IEC expects that the ACS issues being experienced on 8th Avenue will be resolved before implementation on this project.

QBL East CBTC

Concerns

- Siemens has delivered a preliminary ATS extension tool (to enable Mitsubishi to include the QBL East territory), with documentation to MTA C&D for evaluation and acceptance. The extension tool resides at 2 Broadway with limited access for multiple CBTC contractors.
  - The IEC is concerned that the tool has been delayed since November 2023 and with limiting their access will negatively impact the project schedule. The current documentation has been rejected by C&D. Although MTA will receive training on the tool, it is not clear how the contractors will receive adequate training.
  - Siemens has agreed to support Mitsubishi to mitigate this issue.
- Mitsubishi required access to the Integrated Test Facility (ITF) to test their Zone Controllers.
  - C&D has given priority to Mitsubishi to gain access to the ITF.
  - Currently this activity is not on the critical path, but further delays after April 2024, could start to impact Mitsubishi's software testing schedule.

QBL East CBTC

Risks

- In the last CPC report for this project (June 2023), the IEC identified a software development risk that could have an impact on project schedule.
  - During the last six months, Mitsubishi made good progress in its software development and mitigated this risk by effective participation in the I2S Working Group Meetings and demonstrating good understanding of requirements.
- There continues to be a risk that high demand for the TA-supplied services to support the projects in the Capital Program may impact the availability of flagging protection and diversions required to maintain this project's schedule. Although several General Orders (GOs) were cancelled due to operational constraints. However, it has not had any measurable impact on project schedule.
  - The project team, NYCT Operations Planning, and the contractor are closely monitoring the project GO/diversion plan and will adjust, as necessary.
- Depending on C&D's options to resolving the ZC capacity issues, there could be impact to schedule and budget.

Recommendation

- The IEC recommends that Mitsubishi provide a detailed software schedule for software releases to enable C&D to effectively manage software development, testing, and deployment.

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Crosstown Communications Based Train Control (CBTC) Design-Build Project

MTACD Signals & Train Control Business Unit

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CBTC Crosstown

Scope

- The scope of this project is to replace the existing fixed block signal system with a more reliable Communications Based Train Control (CBTC) centric solution, between Court Square and Church Ave Stations on NYCT's G line, that can reliably operate under MTA's evolving Interoperability Interface Specification (I2S). This is the first CBTC Centric project and the first Design-Build Project for the Signals & Train Control (S&TC) Business Unit. This project is recognized as being software-intensive with significant software risks.
  - The base contract work also includes expansion of ATS-B for the Crosstown line project at NYCT's Rail Control Center/Backup Rail Control Center, installation of all necessary software systems to support the CBTC system, performance of all track work at specific locations as detailed in the Project Requirements and Design Criteria (PRDC), construction/fit-out of facilities, and provide supporting systems.
  - Other scope elements include:
    - Furnish and install wayside 5G technology for CBTC Data Communication System (DCS) within the NYCT operating environment.
    - Provide an Enhanced Integrated Test Facility (EITF) for all CBTC Centric projects.
    - Furnish and Install Wayside Train Stops.
    - Rehabilitation of the Greenpoint Discharge Lines on two Crosstown line tracks.
- The contract was awarded to the Design-Build Team of TC Electric, LLC (TCE) with Thales Ground Transportation Systems USA, Inc. (GTS) ("Crosstown Partners," CP) with Designer AECOM USA, Inc. Thales GTS (Thales) has responsibility for the CBTC Centric system.
- A separate contract was negotiated with Thales GTS for routine maintenance services for a 25-year term. This maintenance contract will be issued a Notice to Proceed (NTP) upon final completion of the project.
- WSP USA, Inc. was awarded the Project Management Consultant (PMC) Services for the and Switch Machines) for Fulton and 6th + 63rd Lines.

CBTC Crosstown

Schedule

- The Design Build (DB) contractor was given Notice to Proceed (NTP) in January 2023, for a 57-month duration to the Final Completion (FC) date.
- There are five contractual milestones (MS). MS1, completion of the design phase, includes software simulation and off-site integration testing.

Milestone (MS)	Description	Contractual Completion Date
MS1	Concept Design Validations	6/5/25
MS2	Installation of Trackwork,Switch Machines	8/5/25
MS3	Line Function and Software Stabilization	12/31/26
MS4	Substantial Completion (SC)	7/3/27
MS5	Final Completion (FC)	9/30/27

- The critical path of the DB schedule runs through the ATS Database development, various Software (SW) Builds, Train Control System (TCS) field testing in the North/South sections followed by the completion of system functionally and resolution of all critical defects prior to the release of the last Software Build (7.0).
- Approval of the signal block design remains a near critical element for finalizing the rack and wiring design of Train Control Rooms (TCRs) and may impact dependent design tasks, including locking/manipulation charts and software/database development.
  - Per the baseline, the block design is 11 months delayed and has yet to be fully approved.
- The DB schedule does not sufficiently account for the following key activities:
  - Safety review and certification activities prior to releases for field testing or operations.
  - MTA/PMC Software (SW) and database detailed activities as in the DB software plans.
- The IEC projects delays will be incurred to MS1, MS3 and the IEC forecasts Substantial Completion (SC, M4) in Q4 2027 attributed to:
  - Additional time required once these key SW activities are incorporated and properly linked into the project schedule.
  - Progress tracking behind plan, deferring work to later dates, and applying schedule pressure on resources to be applied to incomplete activities.

  Once these concerns are addressed the IEC will re-evaluate its forecasts.

CBTC Crosstown

Budget

- The current project Budget is $633M, an increase of $9M for additional scope that includes the rehabilitation of the Greenpoint Discharge Lines on two Crosstown line tracks.
- The Project Team's Estimate at Completion (EAC) is $633M, which includes a reserve of $23M.
- The project is 11% complete based on expenditures with 25% time expended. Schedule performance indicates the project is performing slightly behind planned.
- The IEC forecasts an EAC of $638M, which is $5M above what is budgeted. The IEC's analysis considers all known issues (including unanticipated track scope, pending/potential change orders, and risk on remaining work. As such, the current budget may be insufficient to support the Crosstown CBTC in-service date (SC).
- The purchase of new 5G communications equipment for the B Division fleet to support the Crosstown in-service date, will be performed under a separate program.
  - Funding was allocated in Capital Plan Amendment #2, approved in July 2023. A contract is yet to be awarded for this work.

CBTC Crosstown

Observations

- IEC review of the Signal Block Design, revision 4, found quality issues and conflicts with operational scenarios that have not been addressed.
- The Enhanced Integrated Testing Facility (EITF), which is intended to be used before field testing, may not be ready in time for integrated Zone Controller (iZC) software testing since it requires complex development, integration, and verification.

CBTC Crosstown

Concerns

- The CBTC Centric Approach expands the territory controlled by a Zone Controller (ZC) and integrates the interlocking functions within the integrated Zone Controller (iZC).
  - The IEC is concerned that the Crosstown DB has not provided an analysis during the early design phase to demonstrate that its proposed centralized iZC can handle the peak service demand within the expanded territory.
  - Under previous NYCT CBTC projects, ZC capacity had been an issue.

CBTC Crosstown

Risks and Mitigations

The top risks have been grouped by category:

5G Communications Technology

- A further delay in awarding contracts to Siemens and Thales to equip the R-160, R-179, and R-211 trains with 5G communication may impact project schedule.
  - Mitigation: An Integrated Project Schedule (IPS) is being developed that will contain a separate contract to equip the B-Division fleet with new 5G radios, which is needed for the Crosstown CBTC system.

  The IEC notes that the development of the IPS has been delayed. The contracts to equip the trains have yet to be awarded. This delay will impact the Crosstown project schedule. As per the DB schedule for Crosstown CBTC, test trains fitted with 5G radio will be needed by April 2025.
- This is the first use of 5G technology for the Data Communication System (DCS) for CBTC, for the wayside and trains. Additional time may be required for sufficient propagation coverage testing, including adjustments of their design and configuration to address dead spots and debug the 5G.
  - Mitigation: To be developed.

Boundary/Interface Requirements

- Adjacent CBTC contract interface work, zone controllers and the Auxiliary Wayside System (AWS), required complete Crosstown's integration testing has yet to be issued to any contract and may impact project cost.
  - Mitigation: To be developed.

CBTC Crosstown

Risks and Mitigations (continued)

Signal Block Design

- Further delays to the approval of the signal block design, may impact dependent design tasks including locking/manipulation charts and software development necessary for safety approval and operational change acceptance.
  - Partial mitigation: Block Design and TCS Hardware Design activities which have been mitigated to release long lead procurement items (signals, cables, cable management rack system, train stops, and track material) at risk.

  There remain other high priority long lead items (racks for the Integrated Zone Controller (iZC), communications, power and cutover cubicles) that are dependent on the final approval of the block design.
- There is a risk that the signal block design approach may need to be modified to address operational constraints inherent to the DB's approach for extended locking to provide fouling protection. The development of these modifications may impact project cost and schedule.
  - Mitigation: To be developed. C&D is assessing potential operational constraints.
- If the Independent Safety Assessor (ISA) identifies safety issues that need to be mitigated by adding train detection blocks or wayside signals, it will impact project cost and schedule. The ISA is performing a safety assessment on the block design with focus on overspeed protection and trailing point (fouling) protection.
  - Mitigation: To be developed. C&D is awaiting safety assessment to be completed.

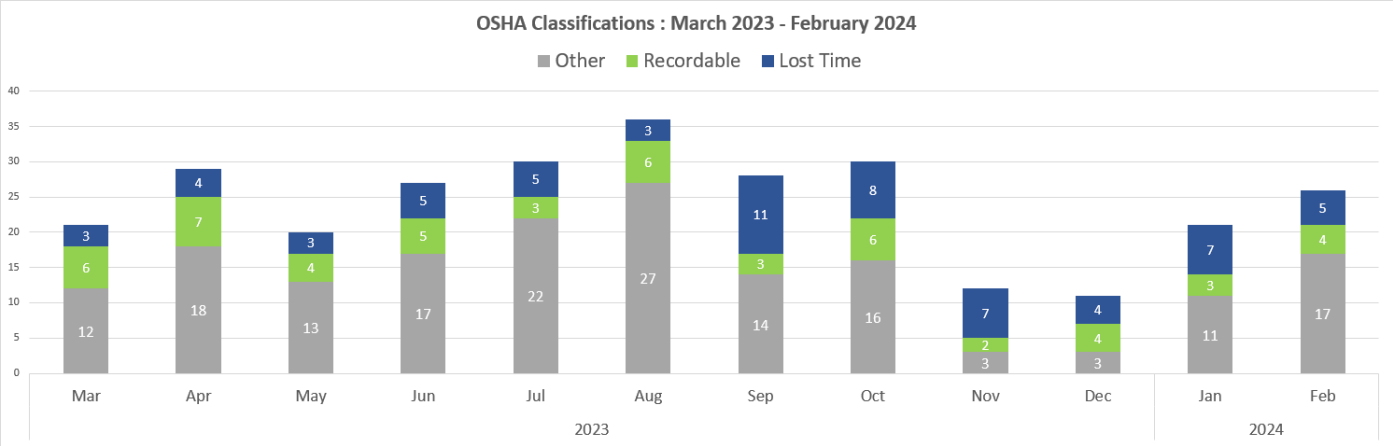
The IEC notes there are several risks that require mitigations to be developed; the remaining risks require further mitigation to minimize cost and schedule impact to the project.

CBTC Crosstown

Recommendations

- The IEC recommends MTA CD engage a third-party entity to conduct an independent review with operation experience to perform a line-by-line review of the block design, including signal aspects and control lines, to ensure that all routes needed for service delivery are provided and that no safety issues arise.
- Crosstown CBTC Centric is a software intensive project. The IEC recommends the PMC/MTA C&D engage software expertise to ensure software meets NYCT design standards and operating environment, including the Interoperability Interface Specification (I2S) and 733-circuit typicals.

SAFETY SUMMARY



Lost Time – A work-related incident (injury or illness) to an employee that results in a loss of productive work time, and the employee is unable to perform regular job duties.
Recordable - An injury or illness that results in restricted work or transfer to another job, medical treatment beyond first aid, or a loss of consciousness.

SAFETY NARRATIVE

FEBRUARY UPDATE:

- 26 safety incidents were reported in February 2024, including:
  - Five (5) lost time incidents.
  - Four (4) recordable incidents.
- The reported lost time incidents in February 2024 decreased by 29% (2 incidents) compared to January 2024.
- Leading lost-time and recordable incident types for February 2024 were Slip, Trip, Fall (55%), and Struck By/Against (33%).
- Overall, the total reported incidents in February 2024 increased by 24% (5 incidents) over those reported in January 2024
- No Serious incidents were reported.

YEAR-TO-DATE TRENDS:

- **LOST TIME INCIDENT TRENDS:** 12 Lost Time incidents have been reported YTD (through February 29, 2024), an increase of 9% (or one (1) incidents) vs. the same reporting period in 2023. The top injury types associated with lost time incidents are Struck By/Against currently at (42%) and Slips, Trips and Falls (33%).
- **RECORDABLE INCIDENT TRENDS:** 7 Recordable incidents have been reported YTD (through February 29, 2024), a decrease of 30% (or three (3) incidents) vs. the same reporting period in 2023. The top injury types associated with recordable incidents are Struck By/Against, currently at (43%) and Slips, Trips and Falls (29%).
- **SERIOUS INCIDENTS: None**

INSPECTIONS & AUDITS:

- **FEBRUARY INSPECTIONS:**
  - **INTERNAL – 221**
  - **EXTERNAL – 652** (78 Third-Party Safety Consultants; 574 OCIP Visits)
- **YTD TOTAL # OF INSPECTIONS:**
  - **INTERNAL – 468**
  - **EXTERNAL – 1,265** (153 Third-Party Safety Consultants; 1,112 OCIP Visits)

FEBRUARY NEGATIVE OBSERVATION(S) – Negative Findings identified through various inspections include General Safety/Housekeeping, Fall Protection, Fire Protection/Prevention, Stairs /Ladders, Supervision/Organization, and Track Safety

FEBRUARY POSITIVE OBSERVATION(S) – Positive Findings identified through various inspections include General Safety/Housekeeping, Fire Protection/Prevention, Supervision/Organization, Tools (Hand & Power), Electrical, Barricades/Enclosures

- **INVESTIGATIONS & LESSONS LEARNED:**
  - **NUMBER OF INVESTIGATIONS for JANUARY –** None

MTA C&D SAFETY STRATEGIC INITIATIVES:

- C&D Safety has implemented the Safety Management System – Phase 1 of 3 phases, implementing the new Safety Management System (SMS) throughout the entire agency but rolling out the program in stages to ensure all staff, supporting projects, vendors, and contractors are systematically adopting the new process and protocols. Phase 1 focuses on enhancements to current safety practices and procedures, identifying and providing clear roles and responsibilities for all levels, updating levels of safety training requirements, and enhancing meeting best practices for safety meetings. The project safety teams continue training the respective project staff and teams. Training of project PMC staff is being scheduled, and C&D Safety continues to assist the project Safety Teams as needed. The informational sessions with the Safety Departments of the various MTA Operational Agencies have been completed. Outreach with vendors and contractors continues, and preparations for other MTA stakeholders are being scheduled.
- C&D Safety continues using the in-house interim safety management reporting program until the agency-wide ESS program is accepted for solicitation. Users continue to be encouraged to report any issues or challenges while submitting suggestions for improvements or refinements. Several updates have been incorporated based on user feedback. Although the program has some limitations, its use has provided a higher level of automation by allowing more direct input by the Analytics Team into the new safety data portal and dashboard. C&D Safety is working with MTA HQ on the possible use of a software platform currently used by the MTA Police Department as a potential upgrade to the interim safety management reporting program.
- C&D Safety continues supporting the Business Units by partnering with the Safety Teams to conduct project safety assessments. These expanded safety assessments are shared with the project Safety Teams and their leadership to assist them in identifying at-risk projects or Contractors. The results of these additional assessments, in conjunction with those performed at the contract management level, will be used during reviews of leading indicators to better focus communication and enforcement strategies.
- C&D Safety continues its outreach with the Building Trades Employers' Association (BTEA) to discuss C&D Safety trends. Additional outreach is being scheduled with other safety organizations C&D collaborates on projects.
- C&D Emergency Management is developing another exercise that will be conducted during the first quarter of 2024. The project has been selected, and the Emergency Management team is now working on defining the exercise parameters. The goal continues to be to perform these exercises quarterly. In addition, the team is drafting an agency Emergency Management system to streamline contracts and operations coordination with MTA stakeholders.
- AECOM Safety Assessment Initiative – A multiphase project to audit, evaluate, recommend, and implement a new Safety Management System (SMS) with MTA C&D. The primary focus is improving safety at construction sites and capital improvement projects around operating MTA rail transit, bridge, and tunnel facilities, including an IT platform selection and data management application. The initiative is also aimed at enhancing the safety culture and behavior of Contractors working for MTA C&D and the C&D staff.
    - C&D Safety is finalizing the Phase 2 training materials rollout and final enhancement to the SMS with AECOM. The tentative rollout is currently scheduled for Q2 of 2024.
- C&D Safety staff recently completed the training course of ISO 45001, Occupational Health and Safety Management Systems Internal Auditor. This training course lays the foundation of the requirements for ISO 45001 certification to support the SMS program in obtaining certification.
- C&D Safety has been holding additional impromptu training sessions on incident notifications for project teams to support the timely and accurate reporting of project incidents throughout all MTA operating agencies where C&D construction occurs.

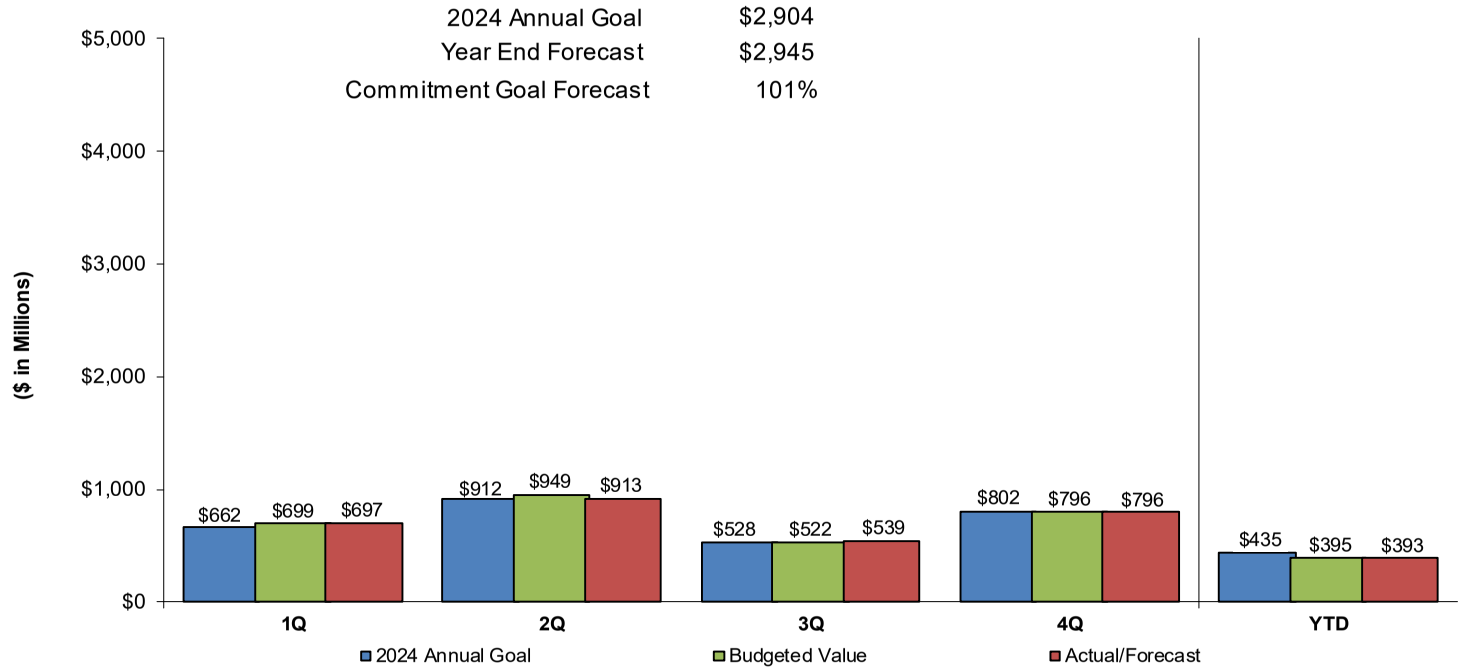
MTA Capital Program
Commitments & Completions

through
February 29, 2024

Metropolitan Transportation Authority

Capital Projects – Commitments – February 2024

MTA-wide 2024 Commitments



Annual Goals: Dollar and time-based programmatic milestones for the commitment of contracts established at the start of each year and which are achievable during the year.
Actuals: The value of the goals and any additional unplanned commitments as they are achieved during the year.
Forecasts: The updated estimates by quarter for remaining goals as well as any unplanned commitments that might occur during the year.
Budget: The budgeted value assumed in the capital program for the Actual and Forecasted commitments being tracked during the year.

Commitments Summary

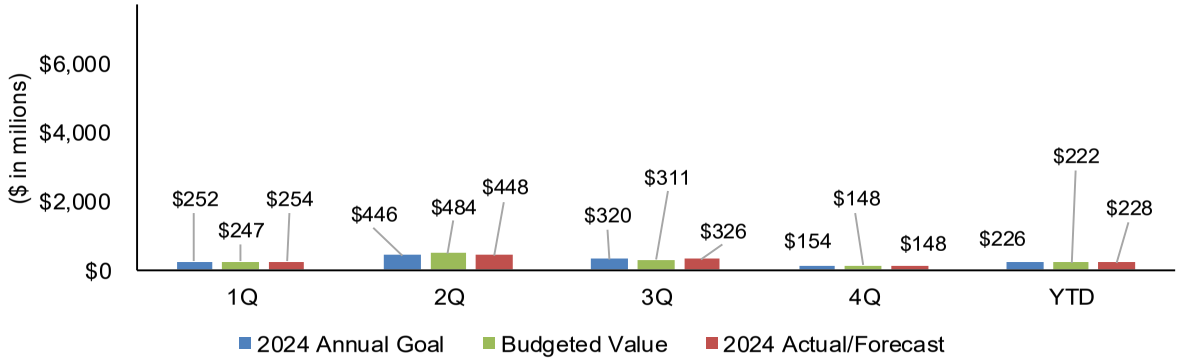
Due to the risk of ongoing litigation delaying congestion pricing funding the MTA plans to commit $2.9 billion worth of capital projects in 2024. Through February, the MTA has committed $393 million versus a $435 million YTD goal. The modest 1% overage in the year end commitment goal forecast is due to support costs for ongoing projects.

A list of major commitments has been identified and at the end of each quarter in 2024 any schedule variances will be reported on the following pages. There are currently no slips this quarter. The commitment plan may be revised, pending the availability of Central Business District Tolling funds.

NYCT/MTA Bus Capital Projects – Commitments – February 2024 – Budget Analysis and Schedule Variances

NYCT and MTA Bus Budget Analysis

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2024 Annual Goal	$252	$446	$320	$154	$226
2024 Actual/Forecast	$254	$448	$326	$148	$228
Budgeted Value	$247	$484	$311	$148	$222



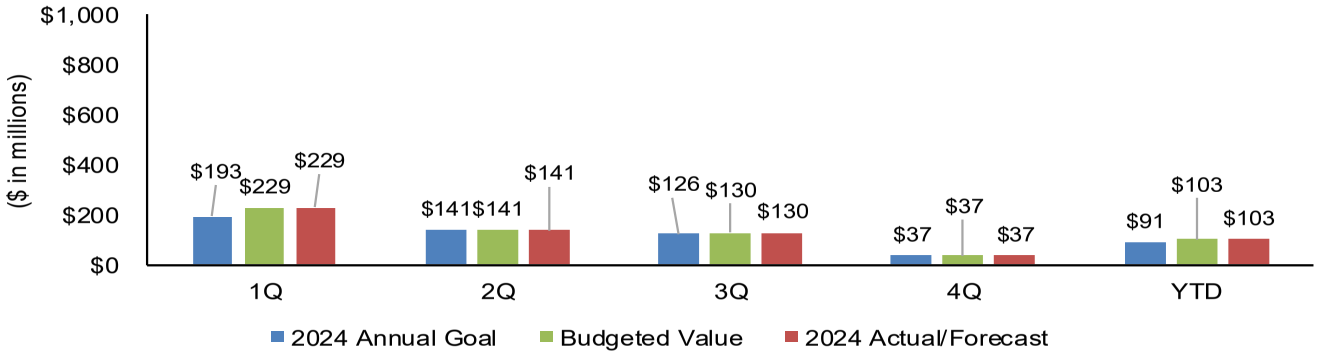
Q1 Schedule Variances

There are no major schedule slippages to report for NYCT and MTA Bus.

LIRR Capital Projects – Commitments – February 2024 – Budget Analysis and Schedule Variances

LIRR Budget Analysis

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2024 Annual Goal	$193	$141	$126	$37	$91
2024 Actual/Forecast	$229	$141	$130	$37	$103
Budgeted Value	$229	$141	$130	$37	$103



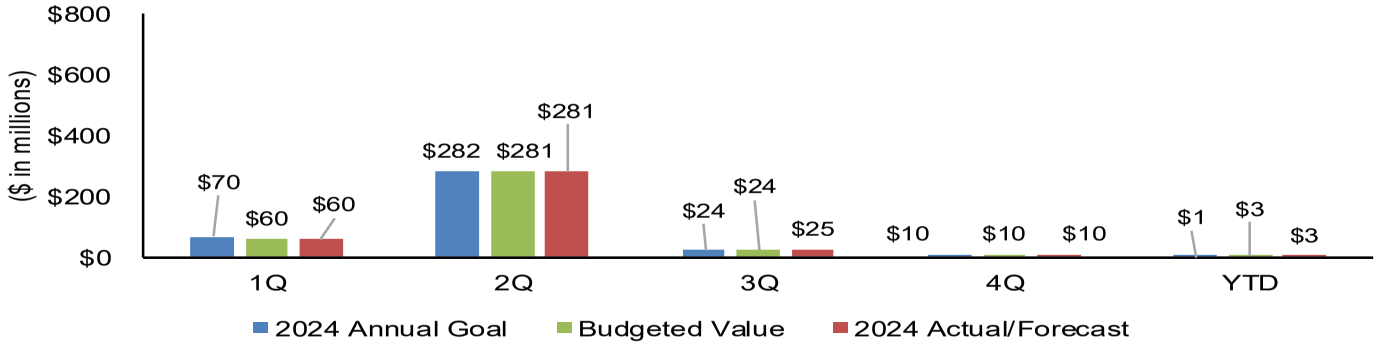
Q1 Schedule Variances

There are no major schedule slippages to report for the LIRR.

MNR Capital Projects – Commitments – February 2024 – Budget Analysis and Schedule Variances

MNR Budget Analysis

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2024 Annual Goal	$70	$282	$24	$10	$1
2024 Actual/Forecast	$60	$281	$25	$10	$3
Budgeted Value	$60	$281	$24	$10	$3



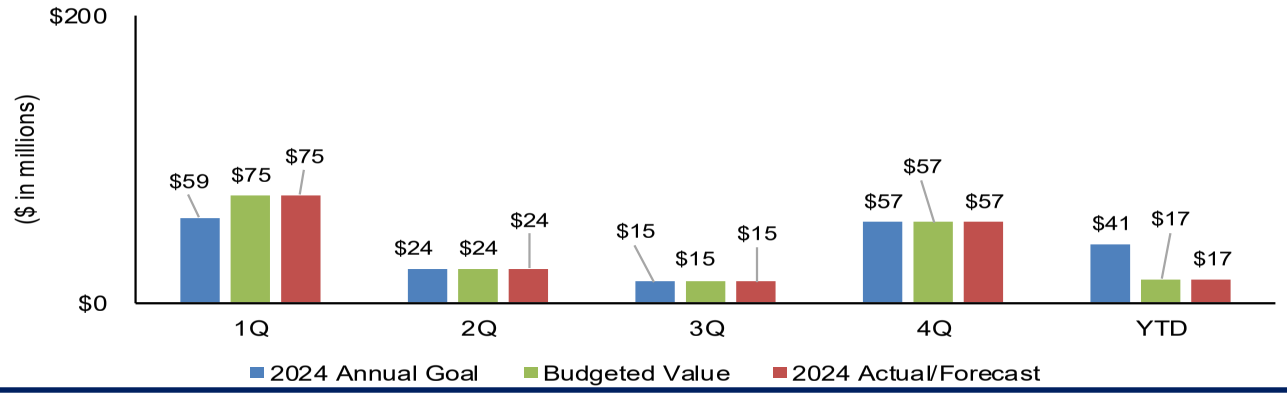
Q1 Schedule Variances

There are no major schedule slippages to report for MNR.

MTA Network Expansion Projects – Commitments – February 2024 – Budget Analysis and Schedule Variances

MTA Network Expansion Budget Analysis

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2024 Annual Goal	$59	$24	$15	$57	$41
2024 Actual/Forecast	$75	$24	$15	$57	$17
Budgeted Value	$75	$24	$15	$57	$17



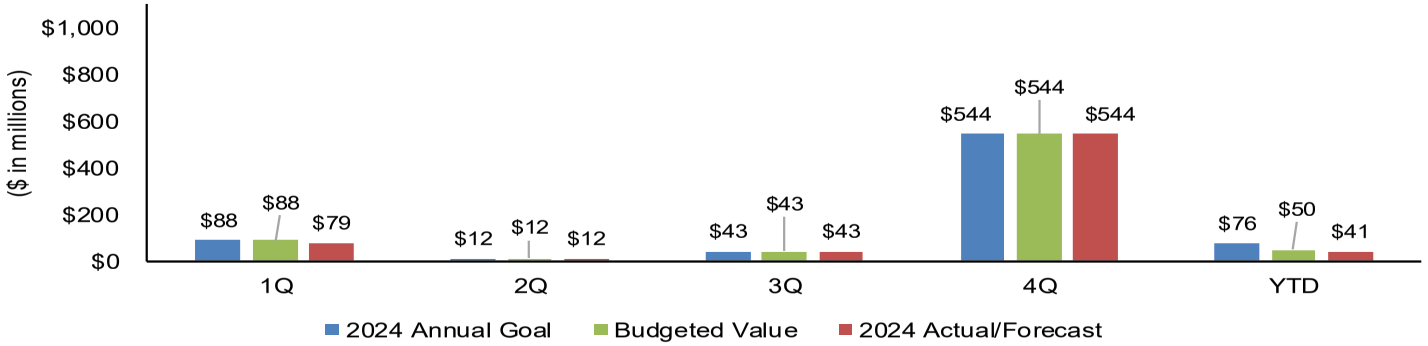
Q1 Schedule Variances

There are no major schedule slippages to report for Expansion.

B&T Capital Projects – Commitments – February 2024 – Budget Analysis and Schedule Variances

B&T Budget Analysis

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2024 Annual Goal	$88	$12	$43	$544	$76
2024 Actual/Forecast	$79	$12	$43	$544	$41
Budgeted Value	$88	$12	$43	$544	$50



Q1 Schedule Variances

There are no major schedule slippages to report for B&T.

Metropolitan Transportation Authority

Capital Projects – Completions – February 2024

Goal \ Forecast		MTA-wide 2024 Major Completions												Post
		Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	2024
Total	59	3	3	4	6	2	7	2	4	8	2	3	15	0
Jan-24	3	3												
Feb-24	3		3											
Mar-24	5			4			1							
Apr-24	6				6									
May-24	2					2								
Jun-24	6						6							
Jul-24	2							2						
Aug-24	4								4					
Sep-24	8									8				
Oct-24	2										2			
Nov-24	3											3		
Dec-24	15												15	

BLUE = Actual/Forecast earlier than Goal
GREEN = Actual/Forecast matches Goal
AMBER = Actual/Forecast within 2 months of Goal
RED = Actual/Forecast beyond 2 months of Goal

Completions Summary

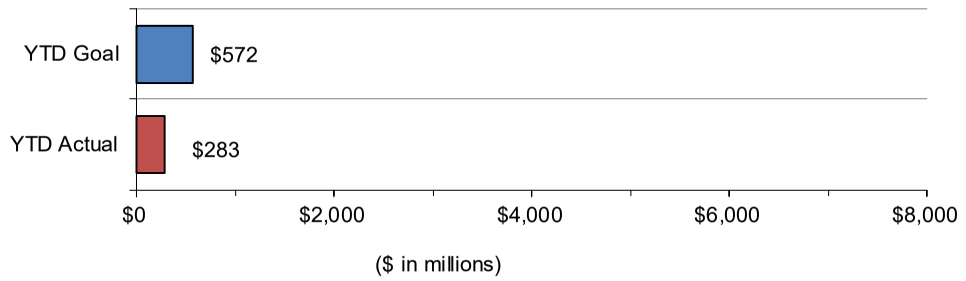
In 2024 the MTA plans to complete $8.4 billion of projects. 59 Major completions will be tracked throughout the year.

Through February, the MTA has completed $283 million versus its year-to-date goal of $572 million. The shortfall is due to several smaller projects at NYCT slipping. Overall, there is only 1 delayed major completion for MTA Bus which is still expected to be committed within the year.

By the year end the MTA forecasts achieving 98% of its completions goal.

Budget Analysis

2024 Annual Goal	$8,415
Year End Forecast	$8,285
Completion Goal Forecast	98%

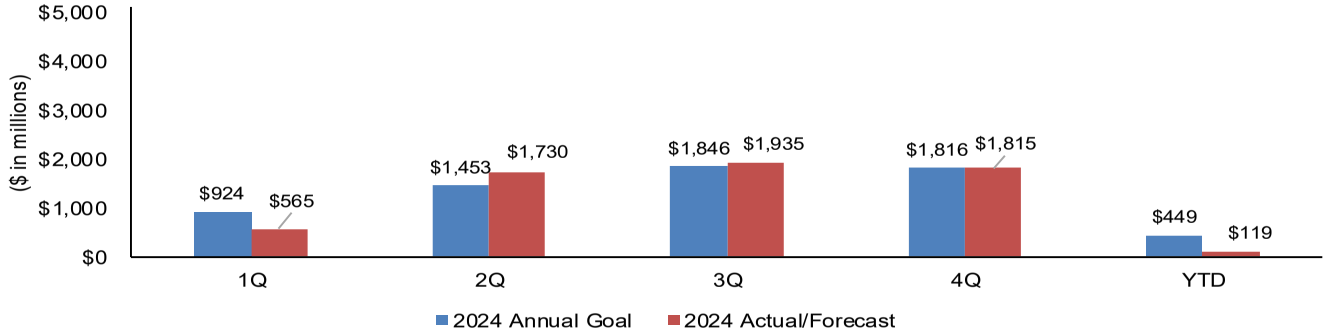


NYCT/MTA Bus Capital Projects – Completions – February 2024 – Budget Analysis and Schedule Variances

NYCT and MTA Bus Budget Analysis

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2024 Annual Goal	$924	$1,453	$1,846	$1,816	$449
2024 Actual/Forecast	$565	$1,730	$1,935	$1,815	$119

2024 Goal (Rolling Stock)	$0	$96	$89	$251	$0
2024 Actual/Forecast (Rolling Stock)	$0	$96	$89	$251	$0



Schedule Variances

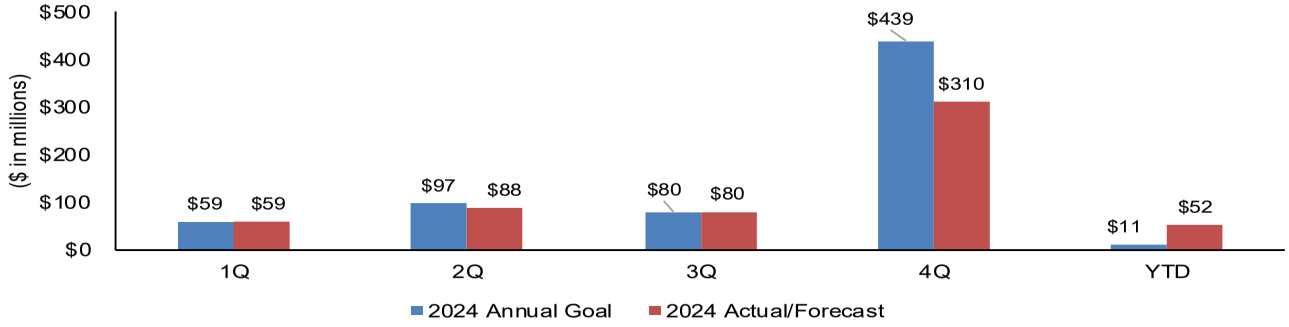
Project	Completion	Goal	Act./Forec.
1 NYCT/MTA Bus Red Completions (1 new this month)			
Red delays are beyond 2 months of goal.			
MTA Bus			
Storeroom Expansion - LaGuardia *(New Item)*	Construction	Mar-24 $7.42	Jun-24 $7.42
Awaiting delivery schedule for components necessary to complete project.			

LIRR Capital Projects – Completions – February 2024 – Budget Analysis and Schedule Variances

LIRR Budget Analysis

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2024 Annual Goal	$59	$97	$80	$439	$11
2024 Actual/Forecast	$59	$88	$80	$310	$52

2024 Goal (Rolling Stock)	$0	$0	$0	$0	$0
2024 Actual/Forecast (Rolling Stock)	$0	$0	$0	$0	$0



Schedule Variances

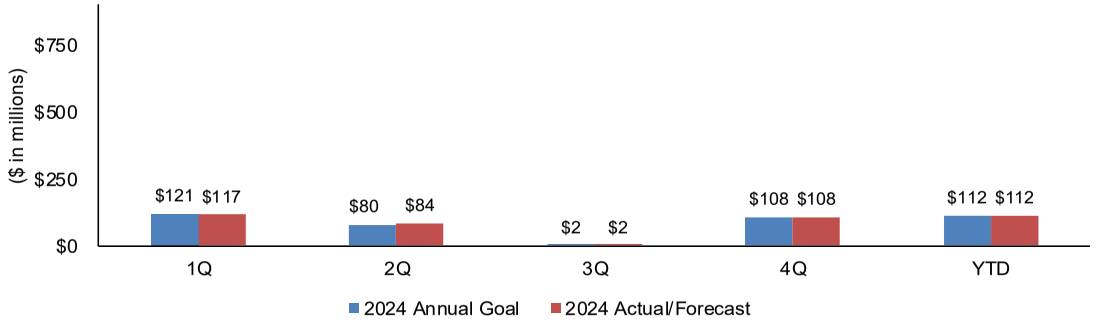
There are no major schedule slippages to report for the LIRR.

MNR Capital Projects – Completions – February 2024 – Budget Analysis and Schedule Variances

MNR Budget Analysis

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2024 Annual Goal	$121	$80	$2	$108	$112
2024 Actual/Forecast	$117	$84	$2	$108	$112

2024 Goal (Rolling Stock)	$0	$0	$0	$0	$0
2024 Actual/Forecast (Rolling Stock)	$0	$0	$0	$0	$0



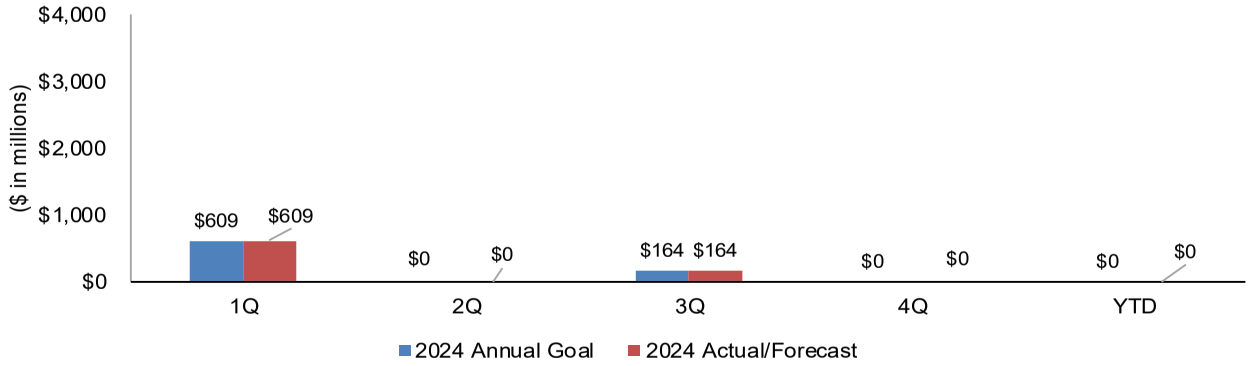
Schedule Variances

There are no major schedule slippages to report for MNR.

MTA Network Expansion Projects – Completions – February 2024 – Budget Analysis and Schedule Variances

MTA Network Expansion Budget Analysis

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2024 Annual Goal	$609	$0	$164	$0	$0
2024 Actual/Forecast	$609	$0	$164	$0	$0



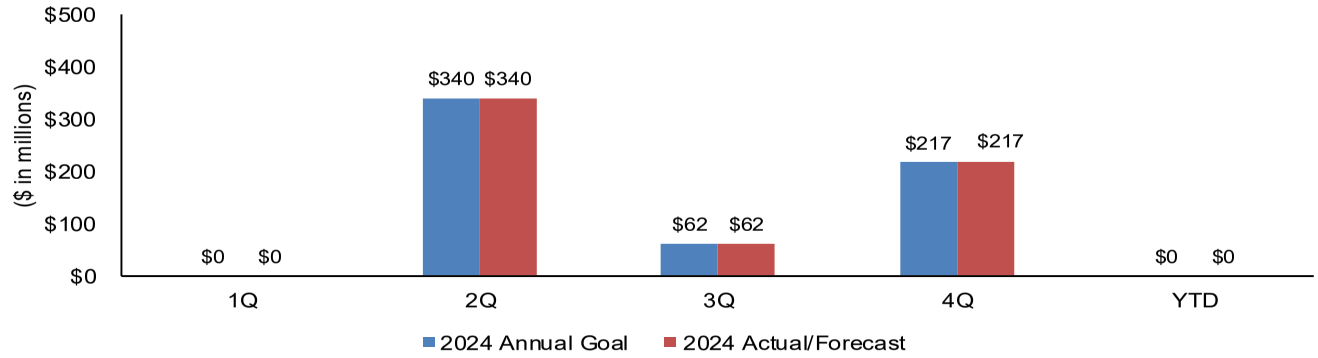
Schedule Variances

There are no major schedule slippages to report for Expansion.

B&T Capital Projects – Completions – February 2024 – Budget Analysis and Schedule Variances

B&T Budget Analysis

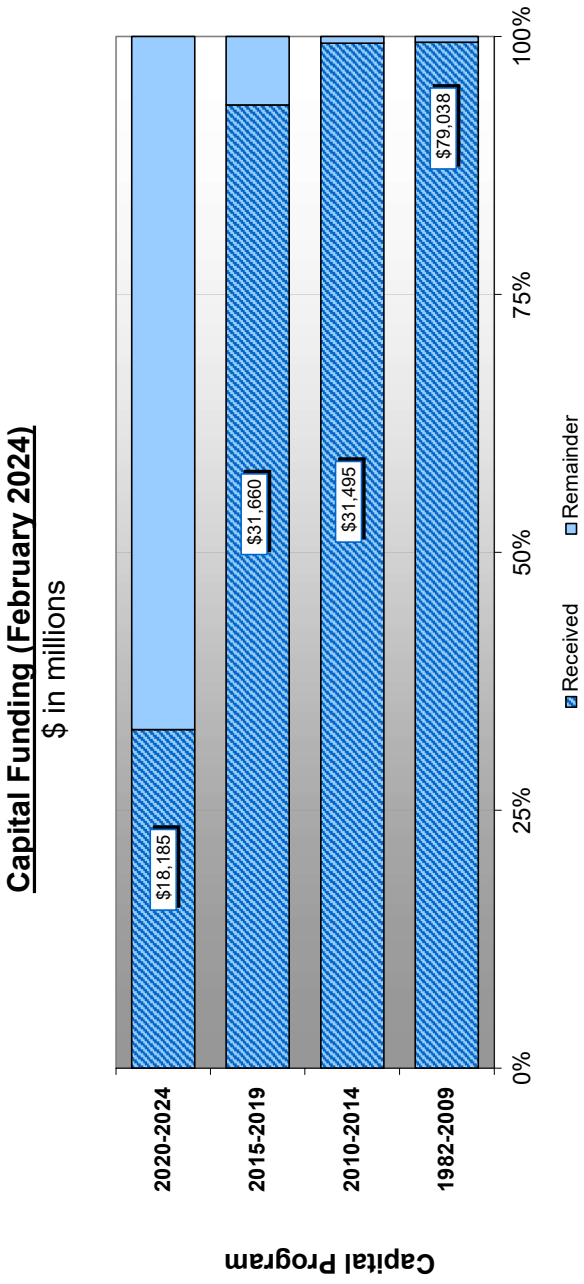
Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2024 Annual Goal	$0	$340	$62	$217	$0
2024 Actual/Forecast	$0	$340	$62	$217	$0



Schedule Variances

There are no major schedule slippages to report for B&T.

Status of MTA Capital Program Funding


Capital Funding (February 2024)
$ in millions
$18,185
$31,660
$31,495
$79,038
2020-2024
2015-2019
2010-2014
1982-2009
Capital Program
0%
25%
50%
75%
100%
Received
Remainder

Capital Funding Detail (February 2024)

$ in millions

2010-2014 Program	Funding Plan Current	Received/Secured Thru January	February	Secured to date	Remainder	
Federal Formula, Flexible, Misc	$5,844	$5,790	$ -	$5,790	$54	
Federal High Speed Rail	173	173	-	173	-	
Federal New Start	1,271	1,271	-	1,271	-	
Federal Security	89	89	-	89	-	
Federal RRIF Loan	-				-	
City Capital Funds	524	524	-	524	-	
City Asset Sales	195	84	-	84	110	
State Assistance	770	770	-	770	-	
MTA Bus Federal and City Match	132	113	-	113	19	
MTA Bonds (Payroll Mobility Tax)	11,635	11,635	-	11,635	-	
Other (Including Operating to Capital)**	1,290	1,290	-	1,290	0	
B&T Bonds	2,025	2,000	-	2,000	25	a
Hurricane Sandy Recovery						
Insurance Proceeds/Federal Reimbursement	6,697	6,697	-	6,697	-	
PAYGO	18	18	-	18	-	
Sandy Recovery MTA Bonds	659	658	-	658	0	*b*
Sandy Recovery B&T Bonds & Cash	383	383	-	383	-	*a*
Total	**31,704**	**31,495**	**-**	**31,495**	**209**	**1%**

2015-2019 Program	Funding Plan Current	Received/Secured Thru January	February	Secured to date	Remainder	
Federal Formula	$4,873	$4,873	$ -	$4,873	$ -	
Federal Flex & Other (Incl HSR/Security/Core Capacity)	528	528	-	528	-	
Federal New Start	1,400	1,400	-	1,400	-	
State Assistance	9,064	8,194	-	8,194	871	
City Capital Funds	2,067	2,066	-	2,066	1	
City Non-Tax Levy Revenue Sources	600	-	-	-	600	
MTA Bonds	9,118	9,118	-	9,118	-	
Asset Sales/Leases	959	326	-	326	633	
Pay-as-you-go (PAYGO)**	2,145	2,145	-	2,145	-	
Other	217	68	-	68	149	
B&T Bonds & PAYGO/Asset Sale	2,942	2,942	-	2,942	-	a
Total	**33,913**	**31,660**	**-**	**31,660**	**2,253**	**7%**

2020-2024 Program	Funding Plan Current	Received/Secured Thru January	February	Secured to date	Remainder	
Capital from Central Business District Tolling	$15,000	$ -	$ -	$ -	$15,000	
Capial from New Revenue Sources	10,000	2,959	-	2,959	7,041	
MTA Bonds and PAYGO	7,393	449	-	449	6,945	
Other Contribution	542	-	-	-	542	
Federal Formula	9,984	8,113	-	8,113	1,871	
State of New York	3,101	511	-	511	2,590	
City of New York	3,007	2,740	-	2,740	267	
Federal New Start (SAS Ph2)	2,005	2,005	-	2,005	-	
Federal Flexible & Other	1,084	1,082	-	1,082	2	
B&T Bonds	3,327	326	-	326	3,001	
Total	**55,442**	**18,185**	**-**	**18,185**	**37,258**	**67%**

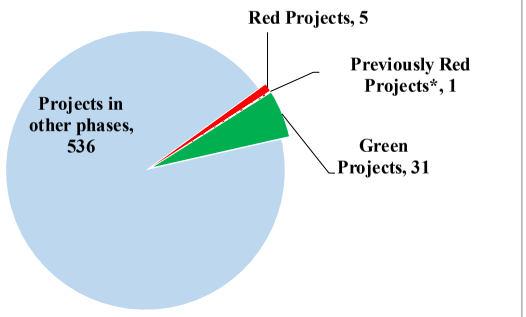
Metropolitan Transportation Authority

4th Quarter 2023 Traffic Light Report on the MTA Capital Program

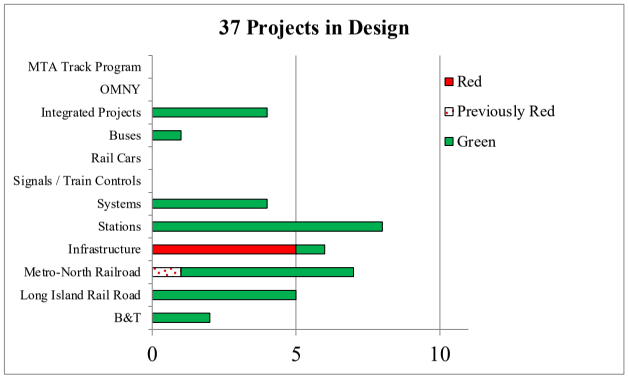
A total of 573 Projects were Reviewed for the 4th Quarter 2023

The 573 active projects include 37 projects in Design, 2 in Post-Design to Construction Award, 534 in Construction

37 of 573 Projects in Design



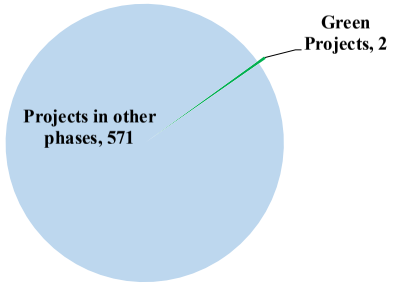
* see Terms and Definitions page



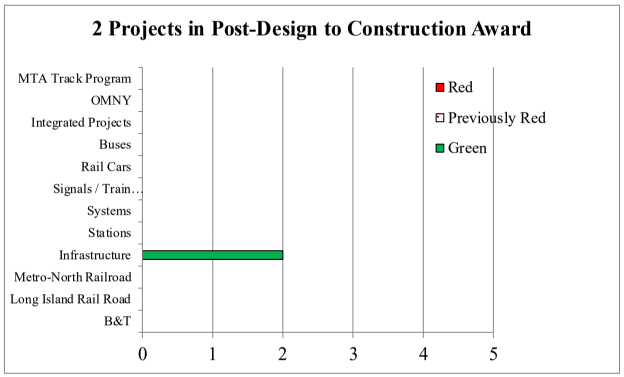
Fourth Quarter 2023: 37 ACEPs were reviewed in this phase with 31 designated green, 1 as previously red, and 5 red. The 5 red projects had root causes of contractor performance and scope change.

Third Quarter 2023: 37 ACEPs were reviewed in this phase with 31 designated green, 5 as previously red, and 1 red.

2 of 573 Projects in Post-Design to Construction Award



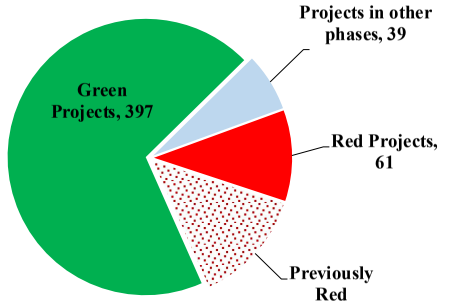
* see Terms and Definitions page



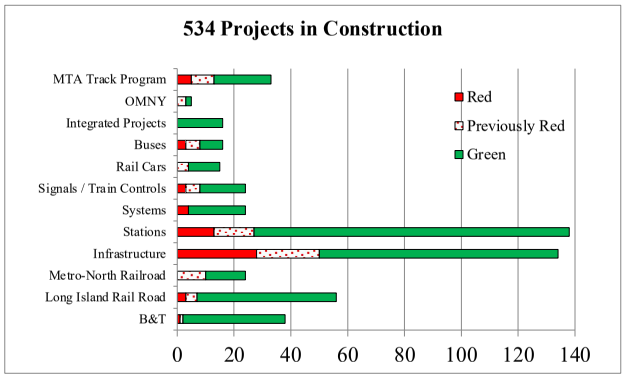
Fourth Quarter 2023: 2 ACEPs were reviewed in this phase, with both designated green.

Third Quarter 2023: 10 ACEPs were reviewed in this phase with 8 designated green and 2 red.

534 of 573 Projects in Construction



* see Terms and Definitions page



Fourth Quarter 2023: 534 ACEPs were reviewed in this phase with 397 designated green, 76 previously red, and 61 red. The 61 red projects had root causes of unforeseen site conditions, scope changes, design errors, contractor performance, material availability, general orders, MTA resource support, weather delays, system integration, and coordination with other projects and/or agency.

Third Quarter 2023: 462 ACEPs were reviewed in this phase with 362 designated green, 72 previously red, and 28 red.

Project Terms and Definitions
4th Quarter 2023 Traffic Light Report

The following Terms and Definitions are used to identify a project's Traffic Light color designation using variances from quarter to quarter and are based on two performance indicators: cost and schedule. A project is designated a "***green light project***" when no performance indicator has exceeded the Traffic Light Report thresholds. A project is designated a "***red light project***" when one or more of the two indicators exceed a specified threshold. Variance reports are required for all qualified red light projects. Included in these reports are project summaries of issues associated with each project showing a **red** indicator and how the issues are being resolved. *A project is designated a "***previous red project***" after one or more performance indicators had triggered a red in a previous quarter(s). A "***previous red project***" may revert back to green after two consecutive quarters if the performance indicator(s) have not worsened.

Project Terms and Definitions

Projects in Design: 37
Green: Indices less than 110% and index movement of less than 10%.
Red: Cost Index - An EAC increase of 10% (or index movement of 10% or more since the last Traffic Light Report).
Red: Schedule Variance - An increase of 3 months or more to substantial completion since the last Traffic Light Report.
Previous Red: Previously indicated as **red** with no new substantial change since the last TLR / A project in design that has been designated as Previous Red may be returned to Green when it has been in compliance with the two performance indicators for two consecutive quarters.

Projects in Post Design to Construction Award Phase: 2
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.
Previous Red: Previously indicated as red with no new substantial change since the last TLR. Project may be returned to Green when it has been in compliance with two performance indicators for two consecutive quarters.

Projects in Construction: 534
Green: Indices less than 110% and index movement of less than 10%. Other indices not exceeding those criteria specified in index formulas and criteria.
Red: Cost Index - An increase of 10% (or index movement of 10% or more since the last TLR).
Red: Schedule Variance - An increase of 3 months or more to substantial completion since the last TLR.
Previous Red: Previously indicated as **red** with no new substantial change since the last TLR / A project in construction that has been designated as Previous Red may be returned to Green when it has been in compliance with the two performance indicators for two consecutive quarters.

Project Terms and Definitions
4th Quarter 2023 Traffic Light Report

Projects in Planning:

- Projects in Planning are reviewed but not displayed in the TLR until the project reaches the design phase but continue to be maintained in the TLR project database for reporting purposes.

Completed Projects:

- Completed projects are removed from the TLR the quarter AFTER Substantial Completion is achieved.

Report Index Formulas and Criteria:

- Cost Index = Total Project EAC / Current Approved Budget.
  (Note: Current Budget is not Budget at Award)
- Cumulative Cost Variance = 3 consecutive quarters with a total cost index increase that cumulatively exceeds the TLR threshold of 10% over 3 quarters.

- Schedule Variance = Number of months of change in schedule since the last TLR.
- Cumulative Schedule Variance = 3 consecutive quarters with a total change in schedule that cumulatively exceeds the TLR threshold of 3 months or more.

- The TLR includes projects in CPOC's Risk-Based Monitoring Program which are listed at the end of the report.

- Only projects with budgets of $7M or greater are included in the current quarter's TLR. Projects with budgets below $7M are not displayed in the current report but will be maintained in the TLR database. If the current budget increases above the $7M minimum threshold, the projects will return to an active status.

4th Quarter 2023 Traffic Light Report
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

ACEPs which the MTA considers the primary element of the bundled contract

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
Construction & Development									
Stations									
Stations - ADA Accessibility Program - Projects in Construction									
ADA Borough Hall Station Bundle									
T8041224	Renewal: Borough Hall LEX	Construction	$125,056,592	14	1.00	▬	0	▬	G
T8041311	ADA: Borough Hall LEX	Construction	$42,544,554	14	1.00	▬	0	▬	G
Broadway Junction Bundle									
T8040714	Replace 3 Escalators at Broadway Junction/FUL	Construction	$22,657,149	0	1.00	▲	0	▬	G
T8041234	Platform Components: Broadway Junction / JAM	Construction	$9,400,135	0	1.00	▲	0	▬	G
T8041346	ADA: Bwy Jct(JAM/CNR/FUL)	Construction	$347,180,495	0	1.00	▲	0	▬	G
T80413DD	ADA: Bwy Jct(JAM/CNR/FUL) - Design	Construction	$11,226,473	17	.99	▬	0	▬	G
T8050288	ML Track Replacement: Broadway Junction / JAM	Construction	$1,411,106	0	1.00	▲	0	▬	G
ADA 14th St Complex									
T7041251	Platform Components: 5 Locs CNR	Construction	$3,592,671	66	1.00	▬	0	▬	G
T70412F4	Subway Street Stairs: 14th Street 6AV	Construction	$3,649,384	66	1.00	▬	0	▬	G
T70412L2	Platform Components: 14 St 6 AV	Construction	$8,055,574	66	.99	▬	0	▬	G
T7041330	ADA: 14th St 6th Av/7th Av Complex DES	Construction	$4,305,325	66	.96	▬	0	▬	G
T7041346	ADA: 6 Av CNR	Construction	$54,739,887	66	1.00	▬	0	▬	G
T7041347	ADA: 14 St 6AV	Construction	$28,459,956	66	1.00	▬	0	▬	G
T7041348	ADA: 14 St BW7	Construction	$50,963,890	66	.99	▬	0	▬	G
T8041221	Station Ventilators CNR	Construction	$2,107,462	66	1.00	▬	0	▬	G
T8041229	Platform Components: 6 Avenue / Canarsie	Construction	$32,806,122	66	1.00	▬	0	▬	G
T8041230	Platform Components: 14th Street / 6 Ave	Construction	$5,042,631	66	1.00	▬	0	▬	G
T8041304	ADA: 6 Ave / Canarsie	Construction	$33,373,926	66	1.00	▬	0	▬	G
T8041305	ADA: 14 St / Broadway/ 7th Ave	Construction	$29,873,986	66	1.00	▬	0	▬	G

4th Quarter 2023 Traffic Light Report
Projects in Design, Post-Design to Construction Award or Construction

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ACEPs which the MTA considers the primary element of the bundled contract

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
Construction & Development									
Stations									
Stations - ADA Accessibility Program - Projects in Construction									
ADA 14th St Complex									
T8070312	LSCRP 8th Ave CNR	Construction	$34,975,533	66	1.00	▬	0	▬	G
ADA 149th Street and Tremont Ave Bundle									
T7041315	ADA: 149 Street-Grand Concourse Complex	Construction	$112,208,781	66	1.01	▬	5	▲	R
T7041338	ADA: Tremont Ave - Concourse Line	Construction	$53,932,641	94	1.02	▬	5	▲	R
ADA 68th St-Hunter College									
T7041324	ADA: 68 St-Hunter College LEX	Construction	$144,505,315	70	.99	▬	0	▬	G
T8041225	Platform Components: 68 St. - Hunter College LEX	Construction	$6,600,830	70	1.00	▬	0	▬	G
T8050244	Mainline Track Replacement 2021 / Hunter College	Construction	$4,245,545	100	1.00	▼	0	▬	G
ADA Package A									
S8070101	Station Components: New Dorp / SIR	Construction	$2,316,923	95	1.00	▬	2	▲	R
S8070108	ADA: New Dorp SIR	Construction	$34,715,249	95	1.00	▬	2	▲	R
S8070110	Components: New Dorp SIR	Construction	$1,398,318	95	1.00	▬	2	▲	R
T8041215	Station Components: Metropolitan Ave XTN	Construction	$3,252,158	95	1.00	▬	2	▲	R
T8041231	Station Components: Metropolitan Ave XTN	Construction	$3,679,485	95	1.00	▬	2	▲	R
T8041303	ADA: Dyckman St (NB) BW7	Construction	$20,283,883	95	1.00	▬	2	▲	R
T8041317	ADA: Grand St CNR	Construction	$27,221,551	95	1.00	▬	2	▲	R
T8041319	ADA: 7th Ave CUL	Construction	$44,727,413	95	1.00	▬	2	▲	R
T8041327	ADA: Lorimer St CNR	Construction	$58,131,049	95	1.00	▬	2	▲	R
T8041328	ADA: Metropolitan Ave XTN	Construction	$46,004,005	95	1.00	▬	2	▲	R
T8041332	ADA: East 149th St PEL	Construction	$38,676,891	95	1.00	▬	2	▲	R
T8041337	ADA: Beach 67th St FAR	Construction	$43,662,144	95	1.00	▬	2	▲	R

4th Quarter 2023 Traffic Light Report
Projects in Design, Post-Design to Construction Award or Construction

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ACEPs which the MTA considers the primary element of the bundled contract

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
Construction & Development									
Stations									
Stations - ADA Accessibility Program - Projects in Construction									
ADA Package 2									
T6041323	ADA: 8th Ave/Sea Beach (Southbnd Ph2)	Construction	$9,848,899	99	.98	▬	0	▬	G
T7041213	Renewal: Woodhaven Blvd JAM	Construction	$56,851,173	43	.99	▬	0	▬	G
T7041314	ADA: Court Square XTN (Elevator Phase)	Construction	$24,273,499	99	.98	▬	0	▬	G
T7041316	ADA: Woodhaven Boulevard JAM	Construction	$39,071,718	53	.99	▬	0	▬	G
T7041327	ADA & Station Improvements: Westchester Sq PEL	Construction	$90,284,470	64	1.00	▬	0	▬	G
T7041335	ADA: Queensboro Plaza FLS	Construction	$73,977,816	48	.99	▬	0	▬	G
T8040708	Replace 5 Elevators at 2 Locations JAM	Construction	$39,488,996	62	1.00	▬	0	▬	G
T8041232	Station Renewal: Woodhaven Boulevard/PEL	Construction	$23,896,231	43	.97	▬	0	▬	G
T8041329	ADA: Woodhaven Blvd/JAM	Construction	$27,482,430	53	.99	▬	0	▬	G
T8041330	ADA & Station Improvements: Westchester Sq/PEL	Construction	$31,496,241	64	.97	▬	0	▬	G
T8041345	ADA: 181 St 8AV	Construction	$46,801,989	94	.99	▬	0	▬	G
T8050246	ML Track Replacement: Westchester Square /Pelham	Construction	$1,120,000	99	.93	▬	0	▬	G
ADA Package 4									
T7041322	ADA: 95 St 4AV	Construction	$35,943,807	30	1.02	▬	0	▬	G
T8040718	Replace 1 Escalator at Parkchester/PEL	Construction	$13,840,841	30	1.00	▬	0	▬	G
T8041227	Platform Components: 137th St/Bwy7	Construction	$8,188,332	30	1.00	▬	0	▬	G
T8041331	ADA Parkchester E.177 St PEL	Construction	$77,384,672	30	.96	▬	0	▬	G
T8041347	ADA: Northern Blvd/QBL	Construction	$39,646,509	30	.96	▬	0	▬	G
T8041371	ADA: 137 St BW7	Construction	$37,740,218	30	.96	▬	0	▬	G
T8041375	ADA: 95th St / 4th Ave (Additional Support)	Construction	$13,931,258	30	.88	▬	0	▬	G

4th Quarter 2023 Traffic Light Report
Projects in Design, Post-Design to Construction Award or Construction

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ACEPs which the MTA considers the primary element of the bundled contract

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
Construction & Development									
Stations									
Stations - ADA Accessibility Program - Projects in Construction									
ADA Package 3									
T8040715	Replace 14 Elevators: 5 Stations	Construction	$74,797,894	5	1.00	▬	0	▬	G
T8041209	Livonia Av-Junius St Station Connector	Construction	$28,890,911	5	1.00	▬	0	▬	G
T8041312	ADA: Junius St / NLT	Construction	$89,280,239	5	1.00	▬	0	▬	G
T8041314	ADA: Sheepshead Bay/ BRT	Construction	$49,238,743	5	1.00	▬	0	▬	G
T8041321	ADA: Kings Hwy / Culver	Construction	$63,847,491	5	1.00	▬	0	▬	G
T8041333	ADA: Mosholu Pk/Jerome	Construction	$53,210,562	5	1.00	▬	0	▬	G
T8041336	ADA: Rockaway Blvd / Liberty Ave	Construction	$60,156,491	5	.99	▬	0	▬	G
T8041338	Woodhaven Blvd/Queens	Construction	$73,241,565	5	1.00	▬	0	▬	G
T8041339	ADA: Steinway St/ Queens	Construction	$119,385,816	5	1.00	▬	0	▬	G
T8041348	ADA: Church Avenue Brighton	Construction	$53,108,015	5	1.00	▬	0	▬	G
All Other Stations Projects									
Component Repairs - 8th Ave Line									
T8060518	Tunnel Lighting, 8 Ave	Construction	$18,399,742	69	1.00	▬	0	▬	G
T8060519	Fan Fiber, 8 Ave	Construction	$17,378,521	69	1.00	▬	0	▬	G
T8070329	Line Structure Repairs, 8 Ave	Construction	$79,729,957	69	1.02	▼	0	▬	G
Station Renewal - Flushing Line - Bundle 1									
T7041218	Renewal: 61 St-Woodside FLS	Construction	$50,002,972	27	1.02	▬	0	▬	G
T7070343	Struct Repair: 61st-Woodside FLS DES	Construction	$3,065,122	27	.95	▬	0	▬	G
T8040709	Replace 4 Escalators at 2 Locations FLS	Construction	$42,530,808	10	1.00	▬	0	▬	G
T8041258	Station Renewal: Woodside 61st Station	Construction	$78,547,236	27	.99	▬	0	▬	G
T8070317	Overcoat Painting: 48 St - 72 St FLS	Construction	$15,579,565	27	1.00	▬	0	▬	G
T8070331	Repair Track/Structure Supporting Steel 61st-Woodside FLS	Construction	$129,416,454	27	1.00	▬	0	▬	G

Metropolitan Transportation Authority

4th Quarter 2023 Traffic Light Report
Projects in Design, Post-Design to Construction Award or Construction

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ACEPs which the MTA considers the primary element of the bundled contract

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
Construction & Development									
Stations									
All Other Stations Projects									
Escalator Replacement Bundle									
T7040707	Replace 6 Escalators / Various (Bx/M)	Construction	$47,962,594	69	1.00	▬	0	▬	G
T7040707	Replace 1 Escalator at Intervale / WPR	Construction	$7,447,760	9	1.00	▬	0	▬	G
T7040713	Replace 5 Escalators / Various (Bk/M)	Construction	$33,736,897	77	1.00	▬	0	▬	G
Station Renewal - Jamaica Line									
T7041214	Renewal: 85 St-Forest Parkway JAM	Construction	$45,783,641	9	1.00	▬	5	▲	R
T7041215	Renewal: 75 St-Elderts Lane JAM	Construction	$44,939,013	24	.99	▬	5	▲	R
T7041216	Renewal: Cypress Hills JAM	Construction	$49,984,641	1	1.00	▬	5	▲	R
T8041249	Platform Edges Wrap-Up: 104St & 121St /JAM	Construction	$242,529	0	1.00	▬	5	▲	R
T8041250	Station Renewal at 85 St - Forest Pkwy / JAM	Construction	$11,002,525	9	1.00	▬	5	▲	R
T8041251	Station Renewal at 75 St Elderts Lane / JAM	Construction	$10,748,186	24	1.00	▬	5	▲	R
T8041252	Station Renewal at Cypress Hills / JAM	Construction	$12,045,438	1	1.00	▬	5	▲	R
T8070342	Demolition of Abandoned Structures: 97th CBH/JAM	Construction	$265,315	0	1.00	▬	5	▲	R
T8080649	PSLAN: Expand Partial to Full at 75 St / JAM	Construction	$655,672	24	1.00	▬	5	▲	R
Grand Central Bundle									
T7041402	Access Improvements: Grand Central, Phase 2	Construction	$22,877,745	38	.99	▬	0	▬	G
T8040713	Replace 8 Escalators: Grand Central - 42 St / FLS	Construction	$86,338,005	30	1.00	▬	0	▬	G
T8041226	Station Ventilators: Grand Central / FLS	Construction	$17,822,057	70	1.00	▬	0	▬	G
Replacement of 37 Elevators at 17 Stations									
T8040706	Replace 20 Elevators At 9 Stations - Design Task	Construction	$5,569,282	0	1.00	▬	0	▬	G
T8040706	Replace 17 Elevators At 8 Stations - Design Task	Construction	$4,827,997	0	1.00	▬	0	▬	G
T8040719	Replace 17 Elevators At 8 Stations	Construction	$139,609,466	0	1.00	▲	0	▬	G
T8040720	Replace 20 Elevators At 9 Stations	Construction	$161,913,792	0	1.00	▲	0	▬	G

Metropolitan Transportation Authority

4th Quarter 2023 Traffic Light Report
Projects in Design, Post-Design to Construction Award or Construction

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ACEPs which the MTA considers the primary element of the bundled contract

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
Construction & Development									
Stations									
All Other Stations Projects									
Station Renewal - Flushing Line - Bundle 2									
T7041210	Renewal: 111 St FLS	Construction	$51,256,599	12	1.01	▬	0	▬	G
T7041211	Renewal: 103 St-Corona Plaza FLS	Construction	$43,731,043	1	1.00	▬	0	▬	G
T7041212	Renewal: 82 St-Jackson Heights FLS	Construction	$39,552,578	11	1.00	▬	0	▬	G
T7041217	Renewal: 69 St FLS	Construction	$42,977,984	1	.99	▬	0	▬	G
T7041219	Renewal: 52 St FLS	Construction	$49,116,945	1	1.00	▬	0	▬	G
T8041243	Station Renewal: 111 St / FLS	Construction	$14,403,140	12	1.00	▬	0	▬	G
T8041244	Station Renewal: 103 St-Corona Plaza / FLS	Construction	$13,827,711	1	1.00	▬	0	▬	G
T8041245	Station Renewal: 82 St-Jackson Heights / FLS	Construction	$12,355,852	11	1.00	▬	0	▬	G
T8041246	Station Renewal: 69 St / FLS	Construction	$13,383,988	1	1.00	▬	0	▬	G
T8041247	Station Renewal: 52 St / FLS	Construction	$15,894,371	1	1.00	▬	0	▬	G
T8041262	Platform Components: 111 St / FLS	Construction	$6,277,620	1	1.00	▬	0	▬	G
Circulation Enhancements - Flushing-Main St									
T7041422	Station Capacity Enhancements: Main St FLS	Construction	$46,512,233	100	.85	▬	0	▬	G
T8041213	Station Components: Main St / FLS	Construction	$2,565,685	100	.67	▬	0	▬	G
Grand Central Circulation Improvements									
T8041239	Grand Central: Center Core East / Flushing	Construction	$108,117,941	12	1.00	▬	0	▬	G
T8041240	Grand Central: Widening Stairs U2/U6 / Lexington	Construction	$3,468,971	5	1.00	▬	0	▬	G
ADA Package 5									
S8070107	ADA: Huguenot - SIRTOA	Construction	$32,324,823	0	1.00	▲	0	▬	G
S80701DD	ADA: Huguenot - SIRTOA - Design	Construction	$640,608	0	1.00	▬	0	▬	G
T8041256	Platform Components: New Lots Ave/NLT	Construction	$14,664,774	0	1.00	▲	0	▬	G
T8041257	Station Renewal: 242 Street / BW7	Construction	$31,002,844	0	1.00	▼	0	▬	G

Metropolitan Transportation Authority

4th Quarter 2023 Traffic Light Report
Projects in Design, Post-Design to Construction Award or Construction

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ACEPs which the MTA considers the primary element of the bundled contract

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
Construction & Development									
Stations									
All Other Stations Projects									
ADA Package 5									
T8041259	Station Components for 46th St- Bliss St/Flushing	Construction	$3,078,795	0	1.00	▼	0	▬	G
T8041302	ADA: 96th St/8Av	Construction	$47,553,062	0	1.00	▬	0	▬	G
T8041306	ADA: 86th St / Lex	Construction	$68,238,737	0	1.00	▲	0	▬	G
T8041309	ADA: 81st St / 8 Av	Construction	$59,375,745	0	1.00	▲	0	▬	G
T8041322	ADA: Classon Ave XTN	Construction	$57,104,721	0	1.00	▼	0	▬	G
T8041323	ADA: New Lots Ave/NLT	Construction	$51,624,812	0	1.00	▼	0	▬	G
T8041326	ADA: 36th St / 4 Av	Construction	$101,927,628	0	1.00	▲	0	▬	G
T8041334	ADA: 242nd Street	Construction	$45,676,098	0	1.00	▲	0	▬	G
T8041341	ADA: Bway/Astoria	Construction	$55,023,813	0	1.00	▲	0	▬	G
T8041349	ADA: 33rd St - Rawson St Station/Flushing	Construction	$85,294,057	0	1.00	▲	0	▬	G
T8041352	46th St- Bliss St/Flushing	Construction	$74,576,814	0	1.00	▲	0	▬	G
T8041372	ADA: Harlem 148th Street / Lenox	Construction	$27,151,723	0	1.00	▲	0	▬	G
T8041373	ADA: Court Square 23 Street / Queens	Construction	$55,757,284	0	1.00	▲	0	▬	G
T8050287	ML Track - 81 St/8AV, 86 St/LEX, 46 St/FLS	Construction	$43,934,808	0	1.00	▲	0	▬	G
ADA and Renewal Work on the Pelham Line									
T80413DD	Station Renewal: Brook Ave - PEL - Design	Design	$1,127,536	55	.00	▬	2	▲	G
T80413DD	ADA: Brook Ave - PEL - Design	Design	$1,308,000	55	1.00	▬	2	▲	G
T80413DD	Station Renewal: 3rd Ave & 138th St - PEL - Design	Design	$1,230,000	55	1.00	▬	2	▲	G
ADA Package 6									
T7041342	ADA: Ave I CUL DES	Design	$3,736,611	39	1.00	▬	1	▲	G
T80413DD	ADA: Burnside Ave/JER DES	Design	$1,512,461	17	1.00	▬	1	▲	G

Metropolitan Transportation Authority

4th Quarter 2023 Traffic Light Report
Projects in Design, Post-Design to Construction Award or Construction

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ACEPs which the MTA considers the primary element of the bundled contract

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
Construction & Development									
Stations									
All Other Stations Projects									
ADA Package 6									
T80413DD	ADA: Norwood Ave / JAM DES	Design	$1,476,905	17	1.00	▬	1	▲	G
T80413DD	ADA: Ave I CUL DES	Design	$1,476,904	17	1.00	▬	1	▲	G
All Other Stations									
T7040703	Replace 8 Traction Elevators / Various	Construction	$56,058,184	100	.99	▬	1	▲	R
T8040711	4 Escalators at 2 Locs Dekalb 4Av & 181 St BXC	Construction	$49,517,599	52	1.00	▬	0	▬	R
T8040712	18 Escalators at 7 Locations	Construction	$207,688,460	16	1.00	▬	0	▬	G
T8040716	Replace 6 Esc and 2 Stairs (Sut Blvd ARC/W4 8AVE)	Construction	$81,130,897	13	1.00	▬	0	▬	G
T8040717	Replace 19 Elevators at Various Locations	Construction	$165,305,977	10	1.00	▬	0	▬	G
T8040721	Replace 21 Escalators At 6 Stations	Construction	$217,949,367	0	1.00	▲	0	▬	G
T8041210	Water Condition Remedy: 2021	Construction	$7,233,650	94	1.00	▬	0	▬	G
T8041217	Platform Components: 3 Locs QBL/ARC	Construction	$31,484,972	85	1.00	▬	4	▲	R
T8041218	Platform Components: 5 Locs BW7	Construction	$72,344,190	33	1.00	▬	0	▬	G
T8041260	Stormwater Mitigation: Street Stairs Package 1	Construction	$7,070,981	25	1.00	▬	0	▬	G
T8160711	EFR Consolidation: 2 Ave / 6Ave	Construction	$21,135,776	60	1.00	▬	0	▬	R
T8041255	Station Condition Survey	Design	$8,191,924	36	1.00	▬	0	▬	G
Infrastructure									
207th St Yard Rehab									
ET100210	Power Cable Replacement- 207th Street Yard	Construction	$46,588,486	99	1.09	▬	6	▲	R
ET100218	Sandy Repairs: 207th St Yard Signals	Construction	$301,033,559	92	1.00	▬	6	▲	R
ET100219	Sandy Repairs: 207 St Yard Track	Construction	$63,978,069	99	1.05	▬	6	▲	R
ET100220	Sandy Repairs: 207 St Yard Switches	Construction	$51,271,993	98	1.02	▬	6	▲	R
ET100310	Long Term Perimeter Protection: 207th St Yard	Construction	$156,302,071	88	.99	▬	6	▲	R

4th Quarter 2023 Traffic Light Report
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ACEPs which the MTA considers the primary element of the bundled contract

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
Construction & Development									
Infrastructure									
207th St Yard Rehab									
ET100312	Sandy Mitigation: 207th Street Yard Portal	Construction	$28,319,591	95	1.00	▬	6	▲	R
Tiffany Warehouse Mitigation									
ET160312	Sandy Mitigation: Tiffany Central Warehouse	Construction	$26,624,479	59	1.06	▲	0	▬	R
T7160723	Tiffany Warehouse Exterior Wall Structural Repair	Construction	$19,133,350	72	1.02	▬	0	▬	R
T7160727	Roof Replacement: Tiffany Central Warehouse	Construction	$20,132,304	78	1.08	▲	0	▬	R
Structural Repairs - Eastern Parkway Line									
T7070323	LSCRP: Brooklyn (EPK)	Construction	$80,508,495	100	.99	▬	0	▬	G
T8070311	Plenum Plate Demo & Struct. Rehab EPK	Construction	$497,251	100	1.00	▬	0	▬	G
T8090408	Rehab CBH Enclosure: CBH 301 Pennsylvania Av / EPK	Construction	$1,783,300	100	1.00	▬	0	▬	G
Structural Rehab and Overcoat Painting at 180th St									
T6080337	Walkway for 8 Bridges/Dyre	Construction	$2,173,289	24	1.00	▬	0	▬	G
T7070301	Struct Rehab/Overcoating - E 180 St Abut WPR	Construction	$71,617,865	24	1.01	▬	0	▬	G
T7070310	Overcoat: 17 Bridges & Flyover at E 180 St DYR	Construction	$66,333,587	24	1.03	▬	0	▬	G
T7070357	East 180 Street Flyover / Dyre Av	Construction	$5,017,221	24	1.00	▬	0	▬	G
T8070341	Demolition of Abandoned Structures - WPR - Phase 2	Construction	$1,165,819	24	1.50	▲	0	▬	G
Overcoat Painting - Jamaica Line									
T8070335	Overcoating: Myrtle Avenue - DeSales Place/JAM	Construction	$83,101,521	6	1.03	▬	0	▬	G
T8070336	Overcoating: Williamsburg Bridge - Myrtle Ave/JAM	Construction	$74,613,885	6	1.03	▬	0	▬	G
T8070337	Overcoating: E New York Yard & Shop Leads/Loops	Construction	$59,784,509	6	1.03	▬	0	▬	G
T8070347	Demolition of Abandoned Structures - Various Ph 2	Construction	$84,000	0	1.00	▬	0	▬	G
Component Repairs - Concourse Line									
T8060512	Fan Plants Component Repairs - BXC Line	Construction	$237,910	0	1.00	▬	0	▬	G
T8060525	Fan Plant Comp Repr: BXC (AWO to C48704)	Construction	$1,550,000	71	1.00	▬	0	▬	G

4th Quarter 2023 Traffic Light Report
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ACEPs which the MTA considers the primary element of the bundled contract

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
Construction & Development									
Infrastructure									
Component Repairs - Concourse Line									
T8070318	LSCRP 161 -192 Sts BXC	Construction	$135,605,075	74	1.06	▬	0	▬	G
T8070319	Vents 161 - 192 Sts BXC	Construction	$13,749,980	51	1.17	▼	0	▬	G
T8080640	Antenna Cable Concourse Line (IND)	Construction	$9,758,422	96	1.00	▬	0	▬	G
Steinway Tunnel Portal Resiliency									
ET060338	Sandy Resiliency: 2 Pump Rooms (Steinway Tube)	Construction	$12,681,940	6	1.00	▬	0	▬	G
ET070308	Sandy Mitigation: Steinway Portal	Construction	$20,672,913	13	1.00	▬	0	▬	G
T6070343	Steinway Portal Mitigation	Construction	$10,874,666	0	1.00	▬	0	▬	G
T6080336	Cathodic Protection, Steinway Tube	Construction	$1,475,829	3	1.00	▬	0	▬	G
T7080648	Police Radio System: Enhance Coverage-Steinway Tube	Construction	$5,467,026	1	1.00	▬	0	▬	G
Hardening of 26 Substations									
ET090307	Hardening of Substations at 24 Locations	Construction	$98,549,996	16	1.00	▬	0	▬	G
ET090313	Hardening Substations: W. Broadway & Murray St.	Construction	$2,589,474	15	.99	▼	0	▬	G
ET090314	Hardening Substations: Tudor City	Construction	$6,441,432	15	1.03	▬	0	▬	G
T60412J3	Sandy Mitigation: 26 Substations - Core 1	Construction	$23,971,377	8	1.00	▬	0	▬	G
T6090219	Sandy Mitigation: 26 Substations - Core 2	Construction	$6,000,000	8	1.00	▬	0	▬	G
T6090417	Sandy Mitigation: 26 Substations - Core 3	Construction	$7,500,000	8	1.00	▬	0	▬	G
T6160730	Sandy Mitigation: 26 Substations - Core 4	Construction	$19,000,000	8	1.00	▬	0	▬	G
Jamaica Bus Depot Reconstruction									
T8030219	Jamaica Gantries BEB (Charging)	Construction	$14,395,148	0	1.00	▬	7	▲	R
T8120303	Jamaica Depot Reconstruction	Construction	$596,336,915	8	1.03	▬	7	▲	R
T8120307	Bus Parking Lot at York College	Construction	$26,980,186	29	1.00	▬	7	▲	R

4th Quarter 2023 Traffic Light Report
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ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
Construction & Development									
Infrastructure									
Substation Renewal - 3 Locations									
T8090221	Substation Renewal: 13 St / CUL	Construction	$28,992,599	6	1.00	▬	0	▬	G
T8090222	Substation Renewal: 82 Rd / QBL	Construction	$26,171,108	6	1.00	▬	0	▬	G
T8090223	Replace High Tension Switchgear at 1 Location	Construction	$9,379,497	6	1.00	▬	0	▬	G
Coney Island Abutment Wall and St. Mark's Ave Bridge									
T8070332	Repair Abutment Wall: Coney Island Yard	Construction	$14,837,740	13	.96	▬	0	▬	G
T8070333	Replace Bridge: St Marks Ave/Franklin Ave Shuttle	Construction	$19,951,880	12	.97	▬	0	▬	G
SIRTOA Station Components and Bridge Rehabilitation									
S8070101	Station Components: Various Locations	Design	$34,294,362	90	1.00	▬	3	▲	R
S8070103	Rehabilitate: Stapleton Viaduct	Design	$29,260,271	90	1.00	▬	3	▲	R
S8070103	Overcoat 6 SIR Bridges	Design	$22,268,697	90	1.00	▬	3	▲	R
S8070103	Rehabilitate Garretson Ave. Bridge	Design	$10,763,878	90	1.00	▬	3	▲	R
Direct Fixation Track Replacement - 63rd St and Jamaica Lines									
T70502A3	Myrtle Av Line (U69 Plates)	Construction	$406,037	100	1.00	▬	4	▲	R
T8050241	Jamaica Direct Fixation	Construction	$57,585,082	100	1.00	▬	4	▲	R
T8050242	63rd Street Direct Fixation	Construction	$107,117,473	65	.99	▬	4	▲	R
T8070326	Jamaica Structural Repairs	Construction	$2,195,062	100	1.00	▬	4	▲	R
T8070327	63 St Structural Repairs	Construction	$1,559,591	2	1.00	▬	4	▲	R
T8090211	Jamaica Line: 84C Contact Rail	Construction	$3,566,446	100	1.00	▬	4	▲	R
T8090212	Jamaica Line Negative Side Feeders	Construction	$429,285	100	1.00	▬	4	▲	R
T8090213	63 St 84C Contact Rail	Construction	$9,545,612	13	1.00	▬	4	▲	R
T8090214	63 St Negative Side Feeders	Construction	$946,040	5	1.00	▬	4	▲	R

4th Quarter 2023 Traffic Light Report
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ACEPs which the MTA considers the primary element of the bundled contract

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
Construction & Development									
Infrastructure									
Rehabilitation of Pumping Facilities									
T8060521	Rehabilitate Pump Room #1028 - Willoughby St/BWY	Construction	$1,969,458	85	1.00	▬	6	▲	R
T8060522	Rehabilitate Pump Room #1029 - Adams St/BWY	Construction	$14,603,894	45	1.00	▬	6	▲	R
Fresh Pond Yard Lighting and Fencing Rehab									
T8100405	Yard Fencing: Fresh Pond Yard	Construction	$800,000	0	1.00	▼	0	▬	G
T8100418	Yard Lighting: Fresh Pond Yard	Construction	$10,451,256	0	1.00	▬	0	▬	G
T8100424	Yard Fencing: Fresh Pond Yard	Construction	$12,415,932	0	1.00	▲	0	▬	G
Bus Radio System									
T6120403	Replace Bus Radio System	Construction	$242,703,268	75	1.12	▬	0	▬	R
T6120444	Repair of East New York Tower	Construction	$5,925,000	94	1.27	▬	0	▬	R
T8120402	Miscellaneous Depot Investments	Construction	$0	0	.00	▬	0	▬	R
T8120410	Bus Radio System - CCM Contract	Construction	$16,496,416	75	1.21	▼	0	▬	R
U6030226	Bus Radio System	Construction	$39,765,805	75	1.23	▲	0	▬	R
U7030211	Bus Radio System - MTA Bus Share	Construction	$43,008,966	75	1.02	▬	0	▬	R
U7030224	Repair of East New York Tower (MTAB)	Construction	$1,975,000	98	1.27	▬	0	▬	R
U8030233	Bus Radio System - MTAB	Construction	$1,612,500	75	1.00	▬	0	▬	R
Flood Mitigation - Coney Island Yard									
ET100211	Power Cable/Comm. Equipt. Repl- Coney Island Yard	Construction	$164,562,094	0	1.00	▬	2	▲	R
ET100307	Coney Island Yd: Long Term Perimeter Protection	Construction	$350,025,424	0	1.00	▬	2	▲	R
T8090409	Rehab 4 CBH Enclosures at Coney Island Yard	Construction	$5,615,825	0	1.00	▬	2	▲	R
New Substations at New Dorp and Clifton Stations									
S7070106	New Power Substation: New Dorp	Construction	$26,637,752	98	1.09	▬	12	▲	R
S7070107	New Power Substation: Clifton	Construction	$32,699,174	98	1.06	▬	12	▲	R

4th Quarter 2023 Traffic Light Report
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Construction & Development									
Infrastructure									
Portable Bus Lift Replacement Bundle									
T8120407	Portable Bus Lift / Equipment Replacement	Construction	$4,749,063	0	1.00	▬	0	▬	G
U8030220	Portable Bus Lift / Equipment Replacement	Construction	$4,564,063	0	1.00	▬	0	▬	G
Substation Component Replacement - Multiple Locations									
T8090217	Replace Transformers and Associated Equip., 2 Subs	Construction	$23,819,411	3	1.06	▲	0	▬	G
T8090218	Replace DC Lineup at Jamaica Yard Substation	Construction	$12,936,611	3	1.00	▬	0	▬	G
T8090219	Replace High Tension Switchgear at 5 Substations	Construction	$25,711,695	3	1.00	▬	0	▬	G
T8090220	Replace High Tension Switchgear at 1 Substation	Construction	$3,825,385	2	1.01	▬	0	▬	G
Rockaway Line Resiliency and Viaduct Rehabilitation									
ET070310	Rockaway ROW Debris Shielding	Construction	$18,298,205	23	.99	▬	0	▬	G
ET070311	Sandy Mit: New Crossover at Beach 105th St. / RKY	Construction	$83,535,572	21	1.02	▬	0	▬	G
ET070312	Rockaway Line Long Term Protection	Construction	$74,569,967	11	1.01	▬	0	▬	G
ET070312	Sandy Mitigation: South Channel Bridge Generator	Construction	$2,350,748	19	1.00	▬	0	▬	G
ET070313	Rockaway Park Yard Compressor Room (ROW)	Construction	$18,520,596	2	.99	▬	0	▬	G
ET070314	Rockaway ROW Debris Shielding: Hammels Wye	Construction	$64,314	0	.01	▬	0	▬	G
T6080338	Rockaway Bundle Shield and Interlocking	Construction	$117,988,006	27	1.00	▬	0	▬	G
T8070310	Special/Misc. Structures Design	Construction	$3,320,572	0	.94	▬	0	▬	G
T8070310	Special/Misc. Structures Design	Construction	$2,716,750	0	1.18	▬	0	▬	G
T8070323	Repl of Elect/Equip: S. Channel Bridge	Construction	$60,275,039	12	1.00	▬	0	▬	G
T8070324	Rehab Hammels Wye	Construction	$106,344,382	14	1.00	▬	0	▬	G
T8070325	Elevated Structure Repairs: Over-Land Sections	Construction	$102,708,449	10	1.00	▬	0	▬	G
Sandy Mitigation for Street Openings and Vent Bays									
ET040341	Sandy Mitigation: Addtl Work at Selected Vent Bays	Post Des to Const Awd	$10,166,726	90	1.04	▼	2	▲	G

4th Quarter 2023 Traffic Light Report
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Construction & Development									
Infrastructure									
Sandy Mitigation for Street Openings and Vent Bays									
ET040342	Sandy Mitigation: Cortlandt St	Post Des to Const Awd	$1,599,575	90	1.00	▲	2	▲	G
Pump Room Mitigation									
ET060327	Existing Pump Room Enhancements	Construction	$44,297,655	0	1.10	▲	0	▬	G
T8060526	Sandy Mitigation: Pump Room Enhancements (Loan)	Construction	$33,172,385	0	1.00	▲	0	▬	G
Duct Sealing & Pump Room Hardening - Jerome & Pelham Tube									
ET060305	Sandy Mitigation: Fan Plant 2 Locations	Construction	$317,922	97	1.00	▬	0	▬	G
ET060336	Sandy Resiliency: 4 Pump rooms(Jerome/Pelham Tube)	Construction	$6,827,637	0	1.00	▲	0	▬	G
T8060527	Sandy Mitigation: Jerome Pump Rooms	Construction	$35,728,002	0	1.00	▲	0	▬	G
T8060528	Sandy Mitigation: Duct Seals FP 7222, 7232 (Loan)	Construction	$4,925,371	0	1.00	▲	0	▬	G
Sandy Power Repair - 12 CBHs and 3 Substations									
ET060305	Sandy Mitigation: Fan Plant 3 Locations	Construction	$388,658	0	1.00	▬	0	▬	G
ET060341	Sandy Mitigation: Ducts at 3 Fan Plants Bklyn/Qns	Construction	$7,675,966	0	1.00	▲	0	▬	G
ET090244	Traction Power Repairs: Various Locations	Construction	$94,908,416	0	1.00	▼	0	▬	G
Substation Component Replacement Bundle									
T7090206	Replace High Tension Switchgear at 7 Substations	Construction	$31,005,085	99	1.02	▬	0	▬	R
T8090216	Replace Transformer and Associated Equip - 41 St Substation	Construction	$6,952,500	80	1.00	▼	0	▬	R
All Other Infrastructure									
ET070209	Sandy Repairs: Rockaway Line Wrap Up	Construction	$49,190,445	81	.99	▬	0	▬	G
ET100314	Sandy Mitigation: 207th Street Sewers	Construction	$142,320,896	85	.95	▼	9	▲	R
ET100315	Sandy Mitigation: Resiliency Improvements at Corona Yard	Construction	$16,595,526	0	.99	▼	0	▬	G
ET160310	Sandy Mitigation: Consolidated Revenue Facility	Construction	$11,574,218	90	.99	▬	0	▬	R
S8070112	SIR Track and Switch Replacement	Construction	$87,721,225	0	1.00	▼	0	▬	G
T7060506	Rehab Forsyth St Vent Plant	Construction	$87,869,771	97	.94	▬	3	▲	R

4th Quarter 2023 Traffic Light Report
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Construction & Development									
Infrastructure									
All Other Infrastructure									
T7070308	Rehab Emergency Exits (3rd Party) - Var Locs	Construction	$19,274,692	9	1.00	▬	0	▬	G
T7090202	Substation Renewal: Av Z CUL	Construction	$31,983,038	93	.99	▬	7	▲	R
T7090219	New Substation: Canal St 8AV	Construction	$80,512,565	29	.99	▬	0	▬	G
T7100441	New Railcar Receiving Improvements	Construction	$119,599,204	33	.98	▬	0	▬	G
T7120306	Generator: Yukon Depot	Construction	$11,816,772	98	1.00	▬	2	▲	R
T7120307	Roof, Office, HVAC: Fresh Pond Depot	Construction	$15,166,684	75	1.02	▬	2	▲	R
T7120321	East New York Depot Windows and Facade	Construction	$19,315,319	85	1.06	▬	5	▲	R
T8060505	Rehab Deep Wells & Control Upgrade Nostrand Line	Construction	$22,335,506	53	.99	▬	9	▲	R
T8060506	Rehab Fan Plant Damper Systems - 7 Locations	Construction	$33,771,531	100	1.00	▬	0	▬	G
T8060514	Fan Plant SCADA Head-End Upgrade	Construction	$18,757,610	65	1.00	▬	0	▬	G
T8060523	Rehabilitate Pump Room #1026 Rockwell/BWY	Construction	$27,926,979	0	1.00	▲	0	▬	G
T8060524	Deep Wells Backflushing, 2 Locations	Construction	$11,901,885	0	1.00	▲	0	▬	G
T8070344	Paint and Steel Repair, Culver Line South	Construction	$100,636,234	7	1.00	▬	0	▬	G
T8070345	Steel Repair, Culver Line North	Construction	$53,077,941	15	1.00	▬	-1	▼	G
T8070348	Structure Painting: Myrtle Line Outstanding Work	Construction	$132,631,968	0	1.00	▬	0	▬	G
T8070354	LSCRP Lexington / Jerome	Construction	$84,590,419	0	1.00	▲	0	▬	G
T8090207	Negative Cables:4th Ave Line - 36St to Pacific Ph3	Construction	$48,544,282	50	1.00	▬	0	▬	G
T8090215	New Substation: 28 St / 8AV	Construction	$71,157,643	39	1.00	▬	0	▬	G
T8090410	Installation of Second Negative Rail / Dyre	Construction	$22,000,000	77	.66	▬	-9	▼	G
T8090411	Rehabilitation of 5 CBHs; Various Locs	Construction	$55,604,805	17	.97	▬	0	▬	G
T8100417	207th St OH Facility	Construction	$38,939,117	20	.99	▬	0	▬	G
T8120304	Roof Topping & Expansion Joints Replacement at MJQ	Construction	$13,941,760	95	1.14	▲	0	▬	R

Metropolitan Transportation Authority

4th Quarter 2023 Traffic Light Report
Projects in Design, Post-Design to Construction Award or Construction

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ACEPs which the MTA considers the primary element of the bundled contract

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
Construction & Development									
Infrastructure									
All Other Infrastructure									
T8160705	Livingston Plz Elec, Mechanical, Generator Phase B	Construction	$69,483,494	65	1.00	▬	0	▬	R
T8160706	EMD Facility: Hoyt-Schermerhorn FUL	Construction	$18,409,279	79	1.26	▲	3	▲	R
T8160716	Crew Quarters (EMD) - 7th Ave Station / 6AV	Construction	$12,942,382	0	1.00	▬	0	▬	G
U7030207	Storerooms and Depot Reconfiguration: LaGuardia	Construction	$7,460,688	68	1.00	▬	3	▲	R
ET100315	Sandy Mitigation: Resiliency Improvements at Westchester Yard	Design	$77,732,109	60	1.00	▬	12	▲	R
T8090407	Power Distribution Design	Design	$1,427,463	0	1.00	▬	0	▬	G
Systems									
Upgrade SCADA System - BMT Division									
ET090310	Sandy Mitigation: Back-up Power Control Center	Construction	$13,317,491	41	.99	▬	0	▬	G
T8090406	Upgrade SCADA BMT	Construction	$50,847,022	41	.99	▬	0	▬	G
Modernization of Fire Alarm Systems - DOS									
T8160604	Fire Alarms and Sprinklers DES	Construction	$2,228,623	0	1.00	▬	0	▬	G
T8160606	Fire Alarm and Sprinklers: Various Locations	Construction	$82,718,833	0	1.00	▲	0	▬	G
Bundle BL01-9497									
T8080607	Comm Room Upgrades: APC Replacement (2020-24)	Construction	$2,237,400	0	1.00	▲	0	▬	G
T8080660	Comm Room Upgrade: APC Repl	Construction	$18,147,778	0	1.00	▲	0	▬	G
T8080661	Comm Room HVAC: 138th St/Grand Concourse	Construction	$394,253	0	1.00	▲	0	▬	G
All Other Systems									
ET040317	Upgrade Emergency Booth Comm System (EBCS)	Construction	$79,249,493	95	1.01	▬	9	▲	R
S7070104	UHF T-Band Radio System Replacement, SIR	Construction	$44,625,386	25	1.00	▬	0	▬	G
T7080607	UHF T-Band Radio System Replacement	Construction	$7,426,891	9	1.00	▬	0	▬	G
T8080615	Liftnet Transition to Ethernet; Ph. 2 - Package 1	Construction	$6,267,620	84	.70	▬	8	▲	R
T8080616	Liftnet Transition to Ethernet; Ph. 2 - Package 2	Construction	$7,528,603	61	.99	▬	9	▲	R

4th Quarter 2023 Traffic Light Report
Projects in Design, Post-Design to Construction Award or Construction

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ACEPs which the MTA considers the primary element of the bundled contract

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
Construction & Development									
Systems									
All Other Systems									
T8080624	PA/CIS Upgrade: Canarsie Line, Phase 2	Construction	$83,745,562	0	1.00	▲	0	▬	G
T8080641	Asych Fiber Optic Network Ring F	Construction	$25,576,663	83	.92	▬	3	▲	R
T8080656	PSLAN Upgrades for PA/CIS Phase 0	Construction	$22,704,771	11	1.00	▼	0	▬	G
T8080657	Upgrade ASYNC Fiber Optic Network Ring E	Construction	$32,844,269	0	1.00	▲	0	▬	G
T8080658	Fiber Optic Cable Replacement (2023)	Construction	$14,593,144	20	1.00	▬	0	▬	G
T8080659	Antenna Cable Replacement: Jay Street	Construction	$9,318,898	4	1.00	▬	0	▬	G
T8090412	Emergency Alarm Rollout Phase 1	Construction	$127,086,434	0	1.00	▲	0	▬	G
T8080608	PA/CIS B-Division Upgrade - 76 Stations	Design	$298,517,827	50	1.00	▬	1	▲	G
Signals / Train Controls									
CBTC - QBL East									
T8050321	CBTC: Queens Blvd East Switch Replacement	Construction	$22,147,497	32	1.00	▬	0	▬	G
T8080318	CBTC: Queens Blvd East and 3 Interlockings - Install	Construction	$413,645,134	32	1.00	▬	0	▬	G
CBTC - Crosstown Line									
T7080347	CBTC: Crosstown Line and 3 Interlockings DES	Construction	$648,087	21	1.00	▬	0	▬	G
T8080323	CBTC: Crosstown Line & 3 Interlockings	Construction	$589,541,149	9	.99	▬	0	▬	G
T8080328	Bergen St Interlocking Upgrade	Construction	$25,764,958	21	1.00	▬	0	▬	G
CBTC - 8th Ave Line									
T7080304	CBTC: 8AV (59 St - High St)	Construction	$222,803,780	84	1.01	▬	0	▬	G
T7080304	CBTC: 8AV (59 St - High St)	Construction	$4,100,000	84	1.00	▬	0	▬	G
T7080335	Interlocking Modernization: 30 St & 42nd St / 8AV	Construction	$225,388,252	84	.87	▬	0	▬	G
T7080344	2019 M/L Switch Repl: 10 Switches CBTC 8AV	Construction	$27,563,382	84	1.00	▬	0	▬	G
Culver Yard Flood Mitigation									
ET100222	Sandy Repairs: Culver Yard (Signals/Track/Switches)	Construction	$117,038,513	0	1.00	▼	0	▬	G

4th Quarter 2023 Traffic Light Report
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ACEPs which the MTA considers the primary element of the bundled contract

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Construction & Development									
Signals / Train Controls									
Culver Yard Flood Mitigation									
T6160210	Hurricane Sandy Recovery Work	Construction	$674,942	54	1.00	▼	0	▬	G
CBTC - Culver Line									
T7080307	Interlocking Modernization: Ditmas CUL	Construction	$112,133,763	91	.91	▬	0	▬	R
T7080332	CBTC: CUL (Church Av to W8 St)	Construction	$136,266,022	91	1.02	▬	0	▬	R
T7080333	Interlocking Modernization: Ave X CUL	Construction	$181,218,203	91	.96	▬	0	▬	R
T7080343	2018 M/L Switch Repl: 7 Switches CBTC CUL	Construction	$39,929,364	91	1.01	▬	0	▬	R
CBTC - QBL West									
T6080319	CBTC Queens Blvd Ln West Ph 1	Construction	$93,061,062	100	1.06	▲	12	▲	R
T7080342	CBTC: 8AV Equip 112 R160 Cars (26 units)	Construction	$11,900,000	62	1.00	▬	12	▲	R
T7080350	CBTC QBL West Phase 1 TA Labor	Construction	$55,498,782	98	1.11	▬	12	▲	R
All Other Signals / Train Controls									
T7080327	Life Cycle Mod - Speed Enforcement Systems	Construction	$59,965,109	77	.91	▬	0	▬	G
T7080342	CBTC: 8AV Equip 316 R179 Cars (73 units)	Construction	$36,910,323	50	.99	▬	0	▬	R
T7080342	CBTC: 8AV Equip 460 R211 Cars (92 units)	Construction	$36,476,901	49	.99	▬	0	▬	G
T8080316	CBTC: GEC Services	Construction	$21,821,659	69	1.00	▬	0	▬	G
T8080317	CBTC: Queens Blvd East and 3 Interlockings - Furnish	Construction	$98,878,358	36	1.00	▬	0	▬	G
T8080329	CBTC: Equip 437 R211 Option 2 Cars	Construction	$12,475,350	0	1.00	▬	0	▬	G
NYCT									
ABLE Phase 2B Bundle									
T8120412	Phase 2B (270 Buses) - ABLE	Construction	$13,303,551	0	1.00	▲	0	▬	G
U8030229	Phase 2B (30 Buses) - ABLE	Construction	$1,043,369	0	1.00	▲	0	▬	G
All Other NYCT									
T6160705	Employee Facility Rehab: RTO Chambers St NAS	Construction	$19,689,116	97	1.05	▬	3	▲	R

4th Quarter 2023 Traffic Light Report
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ACEPs which the MTA considers the primary element of the bundled contract

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Construction & Development									
NYCT									
All Other NYCT									
T8041223	Station Ventilators Ph 21 - 4 Locs/ Manh & BX	Construction	$10,260,856	100	1.00	▬	0	▬	G
T8041235	Station Ventilators Ph 20 - 4 Locations MHTN	Construction	$10,478,119	45	1.00	▬	0	▬	G
T8041254	Station Ventilators: Ph 19 - 4 Locs, Brooklyn	Construction	$9,182,508	59	1.00	▬	0	▬	G
T8041263	Replacement of Signage at Various Stations (2022)	Construction	$10,789,176	0	1.00	▬	0	▬	G
T8070334	Rehab of Emergency Exits - 2022	Construction	$12,507,676	99	1.00	▬	0	▬	G
T8070355	Rehab Emergency Exits	Construction	$9,314,125	9	1.00	▬	0	▬	G
T8070356	LSCRP:Defects w/in Stations(I/H) E Bdwy 6AV	Construction	$17,757,786	28	1.00	▲	0	▬	G
T8130205	Critical Systems Upgrade of Track Geometry Cars	Construction	$10,309,713	0	1.03	▬	0	▬	G
MTA Track Program									
NYCT Department of Subways Track Projects									
T8050208	Mainline Track Replacement 2020 / Flushing	Construction	$59,886,344	92	1.00	▬	4	▲	R
T8050211	Mainline Track Replacement 2020 / Jamaica	Construction	$33,686,426	97	1.20	▬	1	▲	R
T8050227	Mainline Track Replacement 2021 / 11th st Cut	Construction	$20,176,544	0	1.01	▬	2	▲	R
T8050232	Mainline Track Replacement 2021 / Jamaica	Construction	$27,039,948	76	1.00	▬	0	▬	R
T8050234	Mainline Track Replacement 2021 / Jerome	Construction	$11,561,107	94	1.34	▬	0	▬	R
T8050237	Mainline Track Replacement 2021 / Lenox - WPR	Construction	$8,079,477	59	1.00	▬	0	▬	R
T8050250	Mainline Track Replacement 2022 / Brighton	Construction	$32,977,292	46	1.00	▬	0	▬	R
T8050251	Mainline Track - 2022 / Support Costs	Construction	$13,318,003	80	1.00	▬	0	▬	G
T8050252	Mainline Track Replacement 2022 / Myrtle	Construction	$9,224,812	81	1.00	▬	4	▲	R
T8050258	Mainline Track Replacement 2022 / Liberty	Construction	$23,698,058	75	1.00	▬	0	▬	G
T8050266	ML Track - 2022/ White Plains Rd	Construction	$19,002,082	87	1.00	▬	2	▲	G
T8050268	Mainline Track Replacement 2023/6th Ave Culver	Construction	$102,636,053	73	1.00	▼	10	▲	R

4th Quarter 2023 Traffic Light Report
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ACEPs which the MTA considers the primary element of the bundled contract

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Construction & Development									
MTA Track Program									
NYCT Department of Subways Track Projects									
All Other MTA Track Program									
T8050272	ML Track - 2023 DES/EFA	Construction	$16,203,809	20	1.00	▲	0	▬	G
T8050274	ML Track - 2023 / AST	Construction	$16,839,567	45	1.00	▬	6	▲	R
T8050275	Mainline Track Replacement 2023 / Brighton	Construction	$28,085,121	0	1.00	▬	2	▲	G
T8050277	ML Track - 2023 / CNR	Construction	$56,144,604	22	1.00	▬	0	▬	G
T8050279	Mainline Track Replacement 2023 / Lenox-WPR	Construction	$19,606,108	28	1.00	▬	0	▬	G
T8050281	Mainline Track Replacement 2023 / West End	Construction	$9,302,263	83	1.00	▬	0	▬	G
T8050284	Mainline Track Replacement 2023 / 4 Avenue	Construction	$11,292,382	34	1.00	▬	0	▬	G
T8050289	ML Track Replacement 2023/ White Plains Rd	Construction	$12,882,077	86	1.00	▬	0	▬	G
T8050290	ML Track Replacement 2023/ Bwy (Canal St)	Construction	$14,037,902	19	1.00	▬	0	▬	G
T8050322	Mainline Switches - 2022 DES/EFA	Construction	$15,713,385	50	1.00	▬	0	▬	G
T8050324	Mainline Track Switches 2022 / 8th Avenue	Construction	$25,339,912	92	.77	▼	0	▬	G
T8050328	Mainline Track Switches 2022 / Brighton	Construction	$10,551,986	68	.49	▬	2	▲	R
T8050334	ML Switches -2023 DES/EFA	Construction	$17,713,385	40	1.00	▬	0	▬	G
T8050336	ML Switches - 2023 / FUL	Construction	$40,796,690	20	1.00	▬	10	▲	R
T8050339	Mainline Track Switches 2023 / Rockaway	Construction	$17,957,424	33	1.00	▬	0	▬	G
T8050340	ML Switches - 2023 / SEA	Construction	$10,337,265	82	1.00	▬	0	▬	G
T8050341	ML Switches - 2023 / MYR	Construction	$13,471,465	85	1.00	▬	2	▲	G
LIRR and MNR Track Projects									
L8030103	Yard Track Rehabilitation	Construction	$8,000,000	0	1.00	▬	2	▲	R
L8030108	2023- Annual Track Program	Construction	$60,746,591	0	.97	▬	0	▬	G
M8030103	Mainline Turnouts 2023	Construction	$23,900,000	90	1.00	▬	0	▬	G

4th Quarter 2023 Traffic Light Report
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ACEPs which the MTA considers the primary element of the bundled contract

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Construction & Development									
MTA Track Program									
LIRR and MNR Track Projects									
All Other MTA Track Program									
M8030111	2023 Cyclical Track Program	Construction	$30,100,000	76	1.00	▬	0	▬	G
Commuter Railroads									
Long Island Rail Road									
Babylon Interlocking									
L70502LH	Babylon Interlocking Renewal	Construction	$32,639,998	15	1.00	▬	0	▬	G
L8050201	Babylon Interlocking Renewal & New Sidings	Construction	$92,900,000	15	1.00	▬	0	▬	G
Babylon to Patchogue Signals									
L70502LN	Babylon to Patchogue Signal Improvements	Construction	$44,837,008	36	.97	▬	0	▬	G
L8050203	Babylon to Patchogue	Construction	$10,218,400	0	1.02	▬	0	▬	G
Long Island City Yard Resiliency									
EL0602ZL	Long Island City Yard Restoration - Phase 3B	Construction	$6,999,074	48	1.00	▬	0	▬	G
EL0603ZS	Long Island City Yard Resiliency - Wall and Pumping System	Construction	$26,287,019	57	1.00	▬	0	▬	G
EL0603ZU	Long Island City Yard - Construction	Construction	$2,381,000	57	1.00	▬	0	▬	G
L606016J	Long Island City Yard - Phase 3B Core	Construction	$15,217,000	57	1.01	▬	0	▬	G
LIRR Centralized Train Control Integration									
L60502LR	Centralized Train Control - UWB Train Positioning	Construction	$17,000,000	20	1.00	▬	0	▬	G
L8050204	Centralized Train Control	Construction	$18,390,000	25	1.00	▬	0	▬	G
LIRR ADA Package									
L8020411	ADA Locust Manor New Elevators	Construction	$22,787,433	0	1.00	▬	0	▬	G
L8020413	ADA Copiague Platform and New Elevator	Construction	$18,045,726	11	1.00	▬	-20	▼	G
L8020414	ADA St Albans New Elevator	Construction	$25,459,146	0	1.00	▬	0	▬	G
L8020420	ADA Amityville Station	Construction	$15,469,291	21	1.00	▬	-20	▼	G

4th Quarter 2023 Traffic Light Report
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Construction & Development									
Commuter Railroads									
Long Island Rail Road									
LIRR ADA Package									
L8020421	ADA Laurelton Station	Construction	$22,210,135	0	1.00	▬	0	▬	G
L8020422	ADA Massapequa Park Station	Construction	$15,900,038	21	1.00	▬	0	▬	G
L8020423	ADA Lindenhurst Station	Construction	$17,982,066	21	1.00	▬	-20	▼	G
L8020424	Valley Stream Escalator / Elevator Replacement	Construction	$23,671,492	0	1.00	▬	0	▬	G
L8020425	Auburndale Elevator Replacement	Construction	$8,257,909	0	1.04	▬	0	▬	G
LIRR ADA Package 2									
L8020409	ADA Hollis Station	Construction	$88,374,028	0	.90	▼	0	▬	G
L8020412	ADA Forest Hills Platform Extension and Elevator	Construction	$104,716,124	0	.94	▼	0	▬	G
L8020426	Babylon Station Platforms	Construction	$155,000,000	0	1.28	▲	0	▬	G
All Other Commuter Railroads									
EL0303ZH	Emergency Management Equipment Mitigation	Construction	$28,949,402	96	.96	▬	0	▬	R
EL0602ZD	West Side Storage Yard Restoration	Construction	$43,986,089	68	1.00	▬	3	▲	R
L60701AS	Penn Station Substation Replacement	Construction	$35,094,601	15	1.00	▬	0	▬	G
L70304WU	JCI PH 2 -Signals - 3P Design	Construction	$42,431,317	0	1.00	▬	0	▬	R
L70701XX	Hall & Babylon Signal Power Motor Generator Repl.	Construction	$21,432,744	35	1.09	▬	0	▬	G
L8020417	Tactile Strips - Various Locations	Construction	$12,800,000	52	1.00	▬	18	▲	R
L8020418	Mets-Willets EIC Relocation	Construction	$28,700,000	50	1.00	▬	0	▬	R
L8020419	Northport Station Improvements	Construction	$11,067,829	0	.93	▼	1	▲	R
L8020701	GCT Facility Needs	Construction	$18,000,000	23	1.00	▬	0	▬	G
L8030101	Construction Equipment	Construction	$40,000,000	0	1.00	▬	0	▬	G
L8030101	New Track Geometry Car	Construction	$20,000,000	0	1.00	▬	0	▬	G

4th Quarter 2023 Traffic Light Report
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Construction & Development									
Commuter Railroads									
Long Island Rail Road									
All Other Commuter Railroads									
L8030102	Various Right of Way Projects	Construction	$10,000,000	40	1.00	▬	0	▬	G
L8030105	Queens Interlocking	Construction	$128,476,782	42	1.01	▬	0	▬	G
L8030402	Jamaica Capacity Improvements - Phase Two	Construction	$24,035,036	0	.98	▬	0	▬	G
L8030403	JCI - Hall Interlocking Expansion	Construction	$168,584,964	15	1.00	▬	0	▬	G
L8040109	Webster Avenue Bridge Replacement	Construction	$15,902,002	0	1.02	▬	0	▬	G
L8050101	Comm. Pole Line	Construction	$8,000,000	78	1.00	▬	0	▬	G
L8050102	Comm Component Replacement	Construction	$8,015,076	74	1.00	▬	0	▬	G
L8050103	Fiber Optic Network	Construction	$24,000,000	74	1.33	▲	12	▲	R
L8050106	Radio Head-End Replacement	Construction	$12,000,000	45	1.00	▬	0	▬	G
L8050205	Signal Replacement and Interlocking Improvements	Construction	$65,088,316	17	1.00	▬	0	▬	G
L8050205	Signal Replacement and Interlocking Improvements	Construction	$20,000,000	78	1.00	▬	0	▬	G
L8050207	Positive Train Control (ESA)	Construction	$33,000,000	0	1.00	▬	0	▬	G
L8060105	Mid Suffolk Yard Phase 2	Construction	$30,000,000	5	1.00	▬	0	▬	G
L8060403	Fire Protection Improvements	Construction	$25,000,000	9	1.00	▬	0	▬	G
L8070101	Substation Replacements	Construction	$31,514,261	39	1.00	▼	0	▬	G
L8070102	Atlantic Avenue Tunnel Lighting	Construction	$10,000,000	26	1.00	▬	0	▬	G
L8070102	Yard Lighting & Amenities	Construction	$8,000,000	1	1.00	▬	0	▬	G
L8070103	Station & Building Electrical Systems and Platform	Construction	$8,000,000	33	1.00	▬	0	▬	G
L8070103	Signal Power & Power Pole Line Replacement	Construction	$8,000,000	50	1.00	▬	0	▬	G
L8070104	3rd Rail - Protection Board & Aluminum Rail	Construction	$27,000,000	43	1.00	▬	0	▬	G
L8070104	3rd Rail - 2000 MCM Feeder Cable Upgrade	Construction	$13,000,000	30	1.00	▬	0	▬	G

Metropolitan Transportation Authority

4th Quarter 2023 Traffic Light Report
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Construction & Development									
Commuter Railroads									
Long Island Rail Road									
All Other Commuter Railroads									
L8070106	Substation Component Renewal	Construction	$15,226,781	25	1.00	▬	0	▬	G
L8070107	Jamaica Substation	Construction	$74,303,279	19	.95	▬	0	▬	G
EL0402ZA	East River Tunnel Signal Sys & Infra Restoration	Design	$179,871,202	100	1.00	▬	0	▬	G
L70204UO	East Yaphank Station	Design	$20,150,000	50	1.00	▬	0	▬	G
L80204DD	ADA Accessibility and Components 24 Stations DES	Design	$19,750,350	49	1.00	▬	0	▬	G
L8040103	Systemwide Bridge Assessment Study	Design	$45,000,000	25	1.00	▬	0	▬	G
L8060406	Rehabilitation of Employee Facilities - Bethpage	Design	$17,600,000	0	.95	▼	0	▬	G
Metro-North Railroad									
86th and 110th St Substations									
M6050103	H&H Power (86th St / 110th St)	Construction	$18,877,697	100	1.00	▬	0	▬	R
M7050113	H&H Power (86th St / 110th St)	Construction	$15,998,598	99	1.19	▬	0	▬	R
Grand Central Terminal Trainshed									
M7020110	270 Park Avenue GCT Trainshed	Construction	$10,000,000	40	1.00	▬	0	▬	G
M7080114	270 Park Avenue GCT Trainshed	Construction	$9,000,000	40	1.00	▬	0	▬	G
M8020101	GCT Trainshed - Sector 1	Construction	$203,678,206	40	1.01	▬	0	▬	G
Harmon to Poughkeepsie Signal System - Phase 1									
M7040102	Harmon to Poughkeepsie Signal System - Phase 1	Construction	$113,953,848	91	1.10	▬	-4	▼	R
M8040114	Harmon to Poughkeepsie Signal System - Phase 1 - F/A & Proj Mgt	Construction	$38,263,877	100	1.00	▬	-4	▼	G
Harlem and New Haven Line Priority Repair Bundle									
M7020204	Harlem Line Station Improvements	Construction	$20,911,569	99	.98	▬	1	▲	R
M7020217	Purdy's Elevator Improvements	Construction	$7,703,348	99	.89	▬	1	▲	R

Metropolitan Transportation Authority

4th Quarter 2023 Traffic Light Report
Projects in Design, Post-Design to Construction Award or Construction

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ACEPs which the MTA considers the primary element of the bundled contract

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
Construction & Development									
Commuter Railroads									
Metro-North Railroad									
All Other Commuter Railroads									
EM050208	Power Infrastructure Restoration-Substations	Construction	$48,946,896	97	.98	▼	0	▬	R
M7030303	F/A Undergrade Bridge Rehabilitation West of Hudson	Construction	$9,404,423	70	1.04	▬	0	▬	R
M7030304	Moodna/Woodbury Viaduct (incl timbers/walkways)	Construction	$15,876,151	20	1.00	▬	0	▬	G
M7050101	Replace MA's in Signal Substations	Construction	$32,897,111	63	1.23	▬	0	▬	R
M7050105	Harlem and Hudson Power Improvements	Construction	$31,647,268	90	1.33	▬	2	▲	R
M7060101	Harmon Shop Replacement - Phase V	Construction	$434,920,284	0	1.00	▬	1	▲	R
M8020201	Upper Hudson and & Harlem Station Priority Repairs	Construction	$38,315,784	80	.80	▼	0	▬	G
M8020301	Brewster Yard Improvements-SE Parking	Construction	$214,931,900	0	.99	▬	0	▬	G
M8030104	Rock Slope Remediation - East of Hudson	Construction	$6,345,538	50	.85	▬	0	▬	G
M8030107	MoW Equipment	Construction	$29,553,787	3	.78	▬	0	▬	G
M8030201	Park Avenue Viaduct Replacement - Phase 1	Construction	$491,811,780	24	.84	▬	0	▬	G
M8030212	Replace South Street and Fulton Ave Bridges (MtV)	Construction	$46,539,275	33	.95	▬	0	▬	G
M8050109	NHL Pelham Substation Replacement	Construction	$43,201,353	0	.96	▼	0	▬	G
M8050110	Rebuild 2 NHL AC Substations	Construction	$64,436,364	12	.99	▬	0	▬	G
M8060101	Upgrade Automotive Fuel System	Construction	$12,293,814	20	.96	▼	0	▬	G
M7020101	GCT Trainshed - Sector 2 Design	Design	$28,475,986	83	1.08	▬	0	▬	R
M7060104	West of Hudson Yard Improvements - Passing Sidings	Design	$6,415,924	32	.83	▬	0	▬	G
M8020101	GCT Trainshed Study and Inspection	Design	$11,168,298	95	.74	▬	0	▬	G
M8020102	Park Avenue Tunnel Improvements	Design	$10,846,049	25	.82	▬	0	▬	G
M8030304	Moodna/Woodbury Viaduct Repairs	Design	$38,903,228	30	.97	▬	0	▬	G
M8050106	Hudson Line Track 1 Electrification	Design	$3,489,753	24	.34	▬	0	▬	G

Metropolitan Transportation Authority

4th Quarter 2023 Traffic Light Report
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ACEPs which the MTA considers the primary element of the bundled contract

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
Construction & Development									
B&T									
BW Bridge Structural Steel Rehab and Painting									
D801BW14	Miscellaneous Structural Rehabilitation	Construction	$23,693,357	70	.85	▬	0	▬	G
D807BWPT	BW Facility-Wide Painting Program	Construction	$9,326,855	95	.94	▬	0	▬	G
TN Bridge Tower Protection, Painting, and Elevator Rehab									
D701TN87	Design for Anchorage & Tower Protection	Construction	$4,383,478	0	.65	▬	0	▬	G
D801TN49	TN Main Cable and Suspender Rope Investigation	Construction	$32,730,374	0	.88	▼	0	▬	G
D801TN87	TN Anchorage & Tower Protection	Construction	$131,086,130	0	1.49	▲	0	▬	G
D804TN85	TN Bridge Structural Lighting & Misc Struct Upgrade	Construction	$7,179,988	0	.37	▼	0	▬	G
D807TNPT	TN Facility-Wide Painting Program - Phase 2	Construction	$41,401,800	0	.75	▬	0	▬	G
Henry Hudson Bridge Retaining Walls and Shared Use Path									
D801HH37	HHB - North Abutment & Retaining Wall Replacement	Construction	$7,880,504	0	.88	▬	0	▬	G
D802HH07	Henry Hudson Bridge - Shared Use Path	Construction	$13,862,978	0	.88	▬	0	▬	G
RFK Bridge Sidewalk Connection and Fender Upgrades									
D702RK23	HRLS Sidewalk Connection at RFK Bridge	Construction	$21,977,632	100	.95	▬	0	▬	G
D801RK83	RFK Bridge Lift Span Fender Upgrades	Construction	$28,553,922	92	.86	▬	0	▬	G
TN Bridge Structural Steel Rehab and Painting									
D801TN52	Miscellaneous Structural Steel Rehabilitation at TN Bridge	Construction	$5,258,683	49	.72	▬	0	▬	G
D807TNPT	TN Facility-Wide Painting Program - Phase 1	Construction	$11,856,917	75	.70	▬	0	▬	G
Painting and Misc Lighting Improvements at VNB									
D804VN12	Misc. Bridge Lighting & Electrical Improvements	Construction	$19,138,410	0	.62	▼	0	▬	G
D807VNPT	VN Facility-Wide Painting Program	Construction	$122,122,237	0	.87	▼	0	▬	G
Structural Rehab. at Cross Bay and Marine Parkway Bridges									
D801CB30	Structural Rehabilitation of CBB	Construction	$29,674,635	18	.83	▬	0	▬	G
D801MP16	Miscellaneous Steel Repairs	Construction	$6,800,000	14	.75	▬	0	▬	G

Metropolitan Transportation Authority

4th Quarter 2023 Traffic Light Report
Projects in Design, Post-Design to Construction Award or Construction

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ACEPs which the MTA considers the primary element of the bundled contract

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Construction & Development									
B&T									
VN Bridge Lower Level Deck Rehabilitation and Painting									
D802VN81	Lower Level Main Span Deck Rehabilitation - D/B Task	Construction	$87,380,224	14	.86	▬	0	▬	G
D807VN81	Structural Painting - Verrazzano Narrows Bridge	Construction	$16,720,604	14	.95	▬	0	▬	G
Utility Redundancy and Resiliency Improvements at BW and VN Bridges									
D804BW96	Lighting, Power Redundancy & Resiliency Improvements	Construction	$63,089,707	17	.87	▬	0	▬	G
D804VN12	SCADA and Electrical Controls System Upgrade at VNB	Construction	$15,868,795	17	.88	▬	0	▬	G
ED010307	BWB Mitigation - Flood Wall & Other	Construction	$7,331,795	17	.88	▬	0	▬	G
RFK Bridge Suspended Span Retrofit, Anchorage Rehab, and Painting									
D801RK04	Ward's Island/Queens Anchorage Rehabilitation	Construction	$45,200,000	0	2.05	▲	0	▬	G
D801RK19	Suspended Span Retrofit	Construction	$485,284,301	0	1.03	▬	0	▬	G
D807RK19	Zone/Maintenance Painting of Suspended Spans	Construction	$43,250,000	0	.84	▼	0	▬	G
Central Business District Tolling Program									
C801CP01	CBDT - Exploratory Work	Construction	$3,907,631	55	1.00	▬	0	▬	G
C801CP02	CBDT - Program Management	Construction	$94,434,207	55	1.07	▬	0	▬	G
C801CP03	CBDT - Design-Build & Integrate	Construction	$278,453,669	55	.95	▬	0	▬	G
C801CP04	CBDT - Customer Service Ctr.	Construction	$30,975,652	55	.92	▬	0	▬	G
C801CP05	CBDT - Inter-Agency Agreements	Construction	$5,125,576	55	.83	▼	0	▬	G
All Other B&T									
D701TN53	Approach Viaduct Seismic Retrofit/Structural Rehab	Construction	$193,249,635	100	.86	▬	1	▲	R
D801HH36	Dyckman Street Substations Upgrade	Construction	$42,866,935	74	.86	▬	0	▬	G
D801RK93	Reconstruct / Relocate Randall's Island Ramps (QR & RM)	Construction	$115,952,207	41	.87	▬	0	▬	G
D802VN86	Widening Belt Parkway, Phase 1B	Construction	$36,733,790	28	.90	▬	0	▬	G
D804MP09	Electrical Rehabilitation (Elevator)	Construction	$21,692,681	100	.86	▬	-1	▼	G
D805QM36	Relocation of QMT Refueling Station and QSB Switchgear	Construction	$27,405,028	53	.87	▬	0	▬	G

4th Quarter 2023 Traffic Light Report
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ACEPs which the MTA considers the primary element of the bundled contract

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
Construction & Development									
B&T									
All Other B&T									
D807RKPT	RK Facility-Wide Painting Program - Phase 2	Construction	$16,704,181	100	.72	▬	0	▬	R
D801HC48	Rehabilitation of Tunnel Entrance/Exit - Manhattan	Design	$18,687,682	52	.90	▬	0	▬	G
D801VN8Q	VNB Cable Dehumidification-Phase 1	Design	$422,000,414	50	2.00	▬	0	▬	G
Cross Agency									
Integrated Projects									
Penn Station Access									
G7110107	Penn Station Access D/B Stations - NYS Share	Construction	$250,000,000	25	.89	▼	0	▬	G
G7110107	Penn Station Access D/B Stations - Balance	Construction	$30,332,150	25	1.00	▬	0	▬	G
G7110112	Penn Station Access Demolition & 3P Utilities	Construction	$24,110,669	25	1.00	▬	0	▬	G
G8110103	Penn Station Access Construction Management	Construction	$140,450,623	0	1.00	▬	0	▬	G
G8110108	New Rochelle Yard Improvements	Construction	$146,938,000	25	1.00	▬	0	▬	G
G8110114	Penn Station Access Other Design and Indirects	Construction	$697,251,450	25	1.00	▬	0	▬	G
G8110114	Penn Station Access Systems	Construction	$186,074,700	25	1.00	▬	0	▬	G
G8110114	Penn Station Access Catenary	Construction	$150,931,200	25	1.00	▬	0	▬	G
G8110114	Penn Station Access Pelham Bridge, Drainage, & Site Improvements	Construction	$141,344,200	25	1.00	▬	0	▬	G
G8110114	Penn Station Access Trackwork	Construction	$98,949,900	25	1.00	▬	0	▬	G
G8110114	Oak., Co-Op City, DC Substations & 3rd Rail	Construction	$90,024,900	25	1.00	▬	0	▬	G
G8110114	Penn Station Access Bronx River, Bronxdale, & Eastchester Bridges	Construction	$69,371,400	25	1.00	▬	0	▬	G
G8110114	Penn Station Access Design, CP215, & Annex Substations	Construction	$11,812,500	25	1.00	▬	0	▬	G
G8110114	Penn Station Access Catenary (Design)	Construction	$10,395,000	25	1.00	▬	0	▬	G
G8110114	Penn Station Access Van Nest, Bowery Bay, NR Substations	Construction	$4,354,100	25	1.00	▬	0	▬	G

Metropolitan Transportation Authority

4th Quarter 2023 Traffic Light Report
Projects in Design, Post-Design to Construction Award or Construction

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ACEPs which the MTA considers the primary element of the bundled contract

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
Cross Agency									
Integrated Projects									
Second Ave Subway - Phase 2									
G7100107	SAS 2 Prelim Const/Utilities	Construction	$176,267,505	0	.65	▼	0	▬	G
G7100101	SAS 2 PE, Design & Environmental	Design	$199,094,903	89	.97	▬	0	▬	G
G7100101	SAS 2 Consultant Environmental Services	Design	$2,342,188	89	1.00	▬	0	▬	G
G7100105	SAS Consult and in-house Construction Management	Design	$40,416,474	90	1.00	▬	0	▬	G
G7100198	SAS 2 Real Estate	Design	$122,143,430	90	.99	▬	0	▬	G
OMNY									
All Other OMNY									
T6040405	New Fare Payment System, Phase 2	Construction	$102,966,900	42	1.00	▬	0	▬	R
T7040401	New Fare Payment System, Phase 2	Construction	$470,823,580	42	1.00	▬	0	▬	R
T8040405	Additional Work: Fare Collection	Construction	$21,704,846	42	.97	▬	0	▬	R
L8020406	Fare Collection Program	Construction	$35,000,000	0	1.00	▬	0	▬	G
M8020206	New Fare Payment Equipment	Construction	$29,934,305	0	1.00	▼	0	▬	G
Rolling Stock									
Rail Cars									
MNR M8 Fleet Purchases									
M6010102	M-8 New Haven Line Purchase	Construction	$217,116,915	85	.99	▬	0	▬	G
M7010102	M-8 Fleet Purchase	Construction	$117,375,862	85	.99	▬	0	▬	G
M42 Dual-Mode Locomotives									
M7010101	Locomotive Purchase	Construction	$271,650,724	0	1.05	▬	0	▬	G
M8010102	Locomotive Replacement	Construction	$135,783,598	0	.56	▬	0	▬	G
Purchase of R211 B-Division Cars - Kawasaki									
S7070101	Purchase 75 SIR Passenger Rail Cars	Construction	$257,484,699	10	1.00	▬	0	▬	R
T7010101	Purchase 440 B-Division Cars	Construction	$1,408,461,900	29	1.00	▬	0	▬	R

4th Quarter 2023 Traffic Light Report
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ACEPs which the MTA considers the primary element of the bundled contract

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
Cross Agency									
Rolling Stock									
Rail Cars									
Purchase of R211 B-Division Cars - Kawasaki									
T7010102	Purchase 20 Open Gangway Prototype Cars	Construction	$79,905,106	16	1.00	▬	0	▬	R
T8010102	Purchase 640 B-Division Cars (R211 Option 1)	Construction	$1,929,562,122	5	1.00	▬	0	▬	G
NYCT and SIRTOA Flat Cars									
S8070111	SIR Purchase: 7 Flat Cars	Construction	$6,464,484	21	1.00	▬	0	▬	G
T8130206	NYCT Purchase: 45 Flat Cars (Fleet Growth)	Construction	$41,557,394	21	1.00	▬	0	▬	G
All Other Rolling Stock									
ET060317	Sandy Resiliency: Conversion of 2 Pump Trains	Construction	$28,889,741	25	.96	▬	0	▬	G
T7130208	Purchase 12 3-Ton Crane Cars	Construction	$32,794,585	49	1.00	▬	0	▬	G
T7130211	Purchase Locomotives	Construction	$256,092,473	46	1.00	▬	0	▬	G
T7130215	Conversion of 10 R77E Locomotives	Construction	$34,272,847	53	1.00	▬	0	▬	G
L70101ME	M-9 Procurement (110 Cars)	Construction	$377,017,225	0	1.01	▬	5	▲	R
Buses									
Purchase of 60 Battery Electric Buses - New Flyer									
T7030216	Purchase 45 Standard Electric Buses	Construction	$56,662,073	8	1.02	▬	0	▬	R
T8030213	Purchase 15 Standard All-Electric Buses	Construction	$23,758,359	0	1.07	▬	0	▬	R
Purchase of 289 Diesel Buses - New Flyer									
U8030218	173 Standard Diesel Buses (Nova)	Construction	$149,359,420	0	1.00	▬	0	▬	G
Automated Fuel Mgmt System Upgrade - 27 Depots									
T7120418	Automated Fuel Management System Upgrade	Construction	$1,971,228	3	1.00	▬	-22	▼	G
T8120406	Automated Fuel Management System: 15 Depots	Construction	$6,745,963	9	1.00	▬	0	▬	G
U8030222	Automated Fuel Management System Upgrade	Construction	$3,404,848	34	1.00	▬	-22	▼	G

4th Quarter 2023 Traffic Light Report
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ACEPs which the MTA considers the primary element of the bundled contract

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
Cross Agency									
Rolling Stock									
Buses									
Purchase of 135 Diesel Buses - Nova									
U7030219	Purchase 25 Standard Diesel Buses	Construction	$16,419,960	90	.97	▬	8	▲	R
U8030216	Purchase 25 Standard Diesel Buses	Construction	$18,100,000	81	1.00	▬	8	▲	R
U8030217	Purchase 85 Standard Diesel Buses	Construction	$61,917,132	9	1.00	▬	8	▲	R
All Other Rolling Stock									
T6030227	On-Board Audio Visual (OBAV) System	Construction	$9,323,503	46	1.00	▬	0	▬	G
T7030224	AEB Charging Infrastructure - Support of 5 Depots	Construction	$59,502,804	39	1.00	▬	0	▬	R
T8030204	Purchase 245 Articulated Buses	Construction	$281,690,750	0	1.00	▬	0	▬	G
T8030209	Purchase 209 Standard Diesel (Nova)	Construction	$141,211,796	2	1.00	▬	0	▬	R
T8030215	Purchase 5 Standard Battery Elec Buses Test/Eval	Construction	$10,581,362	5	1.00	▬	0	▬	R
U8030205	Purchase 250 Express Buses	Construction	$222,929,368	0	1.00	▬	0	▬	G
U8030227	116 Standard Diesel Buses (New Flyer)	Construction	$101,308,089	0	1.00	▬	0	▬	G
U8030203	Purchase 228 Standard Buses	Design	$350,000	0	.00	▬	0	▬	G
MTA Security Program									
Systems									
Electronic Security System									
T8080645	ESS: West 4th St	Construction	$14,130,634	60	1.00	▬	0	▬	G
T8080644	ESS: Jay St Metro Tech (DES)	Design	$1,827,382	90	.97	▬	1	▲	G
All Other Systems									
T8080612	Passenger ID CCTV - 88 Locations	Construction	$65,954,978	70	.99	▬	0	▬	G
T8080614	URT Phase 3	Construction	$108,425,671	13	1.00	▬	0	▬	G
T8080650	Passenger ID CCTV	Construction	$85,758,355	0	.99	▬	0	▬	G
T8080664	Connection Oriented Ethernet (COE) 3C	Construction	$137,740,412	0	1.00	▬	0	▬	G

4th Quarter 2023 Traffic Light Report
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ACEPs which the MTA considers the primary element of the bundled contract

ACEP	Description	Phase	Total Project EAC	% Phase Complete	Cost Index	Cost Trend	Schedule Variance (Months)	Schedule Trend	Traffic Light
MTA Security Program									
Systems									
All Other Systems									
T8080646	Laser Intrusion Detection	Design	$15,000,000	90	1.00	▬	0	▬	G
T8080647	Track Intrusion Detection	Design	$35,117,256	50	1.00	▬	2	▲	G
Commuter Railroads									
Metro-North Railroad									
M7080110	Systemwide Security Initiatives	Design	$10,412,118	30	1.00	▼	0	▬	G
B&T									
D804AW73	Rehab/Replace Facility Monitoring & Safety Sy	Construction	$41,441,367	0	.78	▬	0	▬	G

Stations Business Unit Program Overview

The Stations Business Unit currently oversees 204 active projects (excluding active Financial Closeout projects), including 115 projects in construction, with a budget of $10.4B. In addition to ADA Package 3 bundle, C&D's first Public-Private Partnership that includes 21 new elevators at eight stations, notable projects under construction are the State of Good Repair work at 6 stations on the Flushing Line, two stations on QBL and five stations on Broadway/7th Ave. Line; the replacement of 54 elevators and 71 Escalators at various locations/lines; Installation of three new elevators and Station Renewal work at Borough Hall; the Livonia-Junius connector; and ADA Package 5 which includes ADA work at 13 stations.

The IEC's Traffic Light Report currently tracks 146 tasks (ACEPs) spanning 4 capital programs. Of those, 13 tasks (9%) were flagged red, representing three projects. The reports below describe why these project tasks (ACEPs) were flagged, and what C&D is doing to remediate.

The Stations BU is also seeking to identify and remediate issues at the program level by proactively engaging project control measures to anticipate challenges as the Business Unit expands at an unprecedented pace.

Stations BU Response to the IEC Traffic Light Report

Individual project descriptions

T7040703: Replacement of 8 Traction Elevators - Various Locations		
Project Budget at award: $61.8M	**Current Budget: $56.1M**	**EAC: $56.1M**
Substantial Completion at Award: October 2022	**Current Substantial Completion: December 2023**	
Trigger: Schedule	**Phase: Construction**	**Phase Complete: 100%**

This project includes the replacement of 8 existing traction elevators which are approaching the end of useful life. The locations include two elevators at Court Street Station, three elevators at Clark Street Station, one elevator at Lexington Ave-63rd Street Station, and two elevators at Roosevelt Island Station. The major scope of work includes the replacement of elevator cabs and equipment within the elevator cabs, shaft ways, pits, and machinery rooms; replacement of ropes and traveling cables; installation of solid-state controls; installation of fault finders; guide rail brackets; and replacement of the existing DC hoist motors and controllers with new AC gearless drives with variable frequency drive control system and the new controllers.

Over the Third and Fourth Quarters 2023, the Substantial Completion date was extended a total of three months, from September 2023 to December 2023, due to supply chain issues that impacted the delivery of air conditioner (AC) units.

The AC units have been delivered and the installation has been completed, all eight elevators are placed in service, and the project declared Substantial Completion December 2023.

Bundled Contract – Station Renewal – Jamaica Line		
Project Budget at award: $175.7M	**Current Budget: $175.7M**	**EAC: $175.7M**
Substantial Completion at Award: June 2025	**Current Substantial Completion: November 2025**	
Trigger: Schedule	**Phase: Construction**	**Phase Complete: 27%**

This bundled contract includes the following ACEPs:

- T7041214: Renewal: 85th St / Forest Parkway - Jamaica Line
- T7041215: Renewal: 75th St / Elderts Lane - Jamaica Line
- T7041216: Renewal: Cypress Hills - Jamaica Line
- T8041249: Platform Edges Wrap-Up 104th St & 121st St - Jamaica Line
- T8041250: Station Renewal at 85th St / Forest Pkwy - Jamaica Line
- T8041251: Station Renewal at 75th St / Elderts Lane - Jamaica Line
- T8041252: Station Renewal at Cypress Hills - Jamaica Line
- T8070342: Demolition of Abandoned Structures: 97th St CBH - Jamaica Line

The station renewal work at these stations consists of the repairing and replacement of structural deficiencies throughout the stations. The scope includes the repair/replacement of the following: platform floors, steel canopy columns, track platform girders, windscreen, top flange of windscreen girders, stiffeners, and other repairs/replacement various components. In addition to the renewal work, platform edge work at 104th St. and 121st St. Stations; demolition of an abandoned Circuit Breaker House at 97th St. Station and the upgrade of PSLAN at 75th St. Station were added to this contract.

During the Fourth Quarter 2023, the Substantial Completion date was extended five months, from June 2025 to November 2025, due to the discovery of extensive steel corrosion on existing girders. During the contractor's survey, girders found on tracks J1 and J2, had corroded beyond the contractually specified repairs within the Stations limit. In addition, bent girders repair work is needed to be performed beyond the contractual limit to match the existing good steel. The allotted contingency will not be enough to fund the added scope and a budget modification will be required.

The PCEO and PMC Office is working with the contractor to mitigate the delay, via taking advantage of piggybacking on adjacent projects' GOs, and achieve Substantial Completion June 2025 as originally planned.

Bundled Contract – ADA: 149th St. and Tremont Ave.		
Project Budget at award: $170.4M	**Current Budget: $162.9M**	**EAC: $162.9M**
Substantial Completion at Award: July 2023	**Current Substantial Completion: December 2024**	
Trigger: Schedule	**Phase: Construction**	**Phase Complete:72%**

This bundled contract includes the following ACEPs:

- T7041315: ADA 149th St – Grand Concourse Complex
- T7041338: ADA Tremont Avenue

This is a bundled design-build contract for the installation of six new elevators, stairs, elevator machine rooms, and ADA boarding areas. In addition, this project includes the re-opening of the historic headhouse at 149th St. Station and the restoration of its decorative terracotta, brick, and iron features.

During the Fourth Quarter 2023, the Substantial Completion (SC) date was extended a further four months, from July 2024 to December 2024, due to the continued lack of subcontractor support and overall poor project management by the contractor. Negotiations with the D-B have been finalized on the time impact related to AWO #8, the construction of the 149th St Station Area of Refuge, which extends the project's overall SC date to December 2024.

In addition, the interim completion milestone for Tremont Ave Station, has been impacted by the delay in completing electrical and communication work and unforeseen steel replacement work located over station

tracks. This project has incurred a total delay of 17 months during construction. Work is being performed at Tremont Ave with transit support to place the 3 Tremont Ave elevators in service by the end of February 2024.

MTA C&D and the CCM are meeting with the contractor, on a weekly basis to review remaining communication work at 149th St GC Station & Tremont Ave. Station.

T8041217: Platform Components – 2 Locations - QBL Line		
Project Budget at award: $31.5M	**Current Budget: $31.5M**	**EAC: $31.5M**
Substantial Completion at Award: November 2023	**Current Substantial Completion: March 2024**	
Trigger: Schedule	**Phase: Construction**	**Phase Complete: 85%**
Root Cause: Contractor Performance / Contractor Issue		

The contract includes the station component work at 36th St., and 46th St. on the –Queens Boulevard Line. The major work includes the repair of platform component work such as the installation of rubbing board, provide tactile warning strips at the northbound and southbound side platforms, ADA Boarding area, repair platform floors, replace lighting fixtures and drip pans, and fix water leaks. Additional deteriorated structural steel work was also added to the project based on the detailed structural survey and exploratory probes and destructive testing.

During the Fourth Quarter 2023, the Substantial Completion date was extended for four months, from November 2023 to March 2024, due to poor contractor performance. The contractor did not perform the demolition of wall tiles; installation of doors; repair of ceiling beams; and concrete spall repair at both stations as scheduled. The additional steel deterioration was within the contract's repair quantities and will not require additional funding.

The PCEO and PMC team are working with the contractor to complete the remaining work and SC is currently expected to be achieved in March 2024.

Infrastructure Business Unit Program Overview

The C&D Infrastructure Business Unit currently oversees 177 active projects comprised of 290 sub-projects, with a budget of $10B, including 57 projects composed of 118 sub-projects in construction ($6B).

- The C&D Infrastructure Business Unit is responsible for all infrastructure construction projects on the NYC Transit and SIR – Staten Island Railway network. This includes line structures (e.g., tunnels, bridges), line equipment (e.g., lighting, pumps, ventilation plants) power substations and cabling, shops and facilities that are essential to NYCT's and SIR's operation.
- Notable projects under construction include Sandy Mitigation: Steinway Tube; Overcoating Jamaica Line; Tiffany Central Warehouse and Substation Renewals

The IEC's Traffic Light Report currently tracks 142 ACEPs (tasks) in the Infrastructure BU. Of those, 33 tasks (23%) were flagged red, representing 13 projects. The reports below describe why these tasks were flagged, and what C&D is doing to remediate, if anything.

Infrastructure BU Response to the IEC Traffic Light Report

Individual project descriptions

Bundled Contract – Direct Fixation Track Replacement - 63rd St and Jamaica Lines		
Project Budget at Award: $183.4M	**Current Budget: $183.4M**	**EAC: $183.4M**
Substantial Completion at Award: December 2023	**Current Substantial Completion: April 2024**	
Trigger: Schedule	**Phase: Construction**	**Phase Complete: 79%**

This bundled contract includes the following ACEPs:

- T70502A3 – U69 Plate replacement on Myrtle Avenue Line
- T8050241 – Direct Fixation at Jamaica Avenue Line
- T8050242 – Direct Fixation at 63rd Street Line
- T8070326 – Structural Repairs at Jamaica Avenue Line
- T8070327 – Structural Repairs at 63rd Street Line
- T8090211 – 84C Contact Rail at Jamaica Avenue Line
- T8090212 – Negative Side Feeders at Jamaica Avenue Line
- T8090213 – 84C Contact Rail at 63rd Street Line
- T8090214 – Negative Side Feeders at 63rd Street Line

This bundled contract's scope includes:

- Replacement of track, contact rail, and signal components of the 63rd Street Line between 47th-50th Street Station and the 21st Street – Queensbridge Station, in the Boroughs of Manhattan and Queens
- Replacement of track, contact rail, and signal components of Jamaica Avenue Line between 121st Street Station and the Jamaica Center Station, in the Borough of Queens
- U-69 plate replacement at Myrtle Avenue Line between Myrtle Avenue and Ditmars Street, in the Borough of Brooklyn

All track work includes the replacement of existing contact rail with new 84C composite contact rail, all appurtenances and cable connections. Signal component replacement includes stop machines, signal heads, riser

boxes, and various component cabling. The track, signal and third rail component work will improve the reliability of train service, increase efficiency for NYCT and help to reduce the amount of maintenance required.

During the Fourth Quarter of 2023, the Substantial Completion date was delayed, from December 2023 to April 2024, due to a delay on an existing project on the QBL line. This delay prevented the rerouting of trains necessary to support the GOs required for this project. The project team has subsequently worked with Operations Planning to reschedule General Orders to meet substantial completion by April 2024.

T7090202: Substation Renewal – Avenue Z – Culver Line		
Project Budget at Award: $32.3M	**Current Budget: $32.2M**	**EAC: $32.0M**
Substantial Completion at Start: September 2021	**Current Substantial Completion: July 2024**	
Trigger: Schedule	**Phase: Construction**	**Phase Complete: 93%**

This substation renewal will improve reliability of train services by furnishing adequate electrical power along the Culver Line right of way. The scope includes the removal and disposal of an existing mercury arc rectifier, installation of a power silicon rectifier, liquid filled transformer, AC high tension switchgear, DC switchgear and associated equipment, new Con Edison high tension service, and replacement of associated facilities.

During the Fourth Quarter 2023, the Substantial Completion date was extended a further seven months, from December 2023 to July 2024, due to ConEd changes in testing and commissioning requirements. These changes were made after project award, requiring the original equipment manufacturer make changes to their equipment to meet the new requirements. Project team is working with the manufacturer to fabricate/modify parts by March 2024 and complete the installation, testing, and commissioning by July 2024.

Bundled Contract – Jamaica Bus Depot Reconstruction		
Project Budget at Award: $626.6M	**Current Budget: $626.4M**	**EAC: $626.4M**
Substantial Completion at Award: December 2026	**Current Substantial Completion: July 2027**	
Trigger: Schedule	**Phase: Construction**	**Phase Complete: 12%**

This bundled contract includes the following ACEPs:

- T8030219: Charging Gantries at Jamaica Bus Depot
- T8120303: Jamaica Bus Depot Reconstruction
- T8120307: Bus Parking Lot at York College

This project is for the design and construction of a new, LEED certified Jamaica Bus Depot facility and includes the demolition of the existing Jamaica Bus Depot in its entirety, construction of adequate shop, office and storage space, equipment such as bus lifts and washers. This project also includes the installation of charging gantries to support battery electric buses and the construction of a temporary parking lot at York College.

During the Fourth Quarter 2023, the Substantial Completion date was extended seven months, from December 2026 to July 2027, due to an error in the design of the drainage for the temporary (York) parking lot. In March 2023, while preparing to submit the SWPPP application to DEP, the Designer of Record (DOR) discovered issues with their design of the stormwater detention system, below the parking lot at York College. The DOR was required to revise the design and resubmit so the DEP could review and approve the SWPPP application. The parking lot will be available for bus moves at the end of March 2024. The project team's efforts to mitigate delays may be at risk due to the uncertainty of real estate acquisitions (requiring the resequencing of contractor's work).

Bundled Contract – SIR Station Components: Various Locations		
Project Budget at Award: $96.6M	**Current Budget: $96.6**	**EAC: $96.6M**
Original Design Completion: April 2021	**Current Design Completion: March 2024**	
Trigger: Schedule	**Phase: Design/Definition**	**Phase Complete: 90%**

This bundled contract includes the following ACEPs:

- S8070101: 2020-2024 SIR Station Component Program
- S8070103: Rehabilitate Garretson Ave. Bridge
- S8070103: Overcoat 6 SIR Bridges
- S8070103: Rehabilitate: Stapleton Viaduct

This bundled contract entails component repairs at seven Staten Island Railroad stations, overcoat painting and structural repairs on six bridges, and the rehabilitation of both the Garretson Avenue Bridge and Stapleton Viaduct.

During the Fourth Quarter of 2023, the Design Completion date was extended three months, from October 2023 to January 2024. The environmental reports were not completed in a timely manner. The surveys were performed in September 2023, but the reports were not submitted to C&D Environmental for review until February 2024.

After the reporting period, the Design Completion date was pushed out an additional two months, to March 2024, while the stakeholders continue to reconcile their needs.

Bundled Contract: Sandy Mitigation at 207th Street Yard		
Project Budget at Award: $592.0M	**Current Budget: $636.9M**	**EAC: $662.9M**
Substantial Completion at Award: November 2023	**Current Substantial Completion: May 2024**	
Trigger: Schedule	**Phase: Construction**	**Phase Complete: 96%**

This bundled contract includes the following ACEPs:

- ET100210: Power Cable Replacement- 207th Street Yard
- ET100218: Sandy Repairs: 207th St Yard Signals
- ET100219: Sandy Repairs: 207 St Yard Track
- ET100220: Sandy Repairs: 207 St Yard Switches
- ET100310: Long Term Perimeter Protection: 207th St Yard
- ET100312: Sandy Mitigation: 207th Street Yard Portal

This bundled contract's scope includes flood mitigation to protect this rail yard complex, home to the Overhaul, Maintenance, signal shops and more, from a storm surge threat. The scope includes the construction of flood barriers above and below grade, two new signal relay buildings, the replacement of track and third rail, upgrading and replacing the entire yard signal system and rehabilitation of Circuit Breaker Houses and pump rooms.

During the Fourth Quarter 2023, the Substantial Completion date was delayed six months, from November 2023 to May 2024, due to unforeseen site conditions. During the excavation for the remaining floodwall construction the contractor found unforeseen conditions at 2 locations. The contractor found previously unknown, below

grade, railroad tracks at location 1 (9th Avenue) which initially delayed the excavation. At location 2, the contractor discovered ConEd did not protect their assets as expected, necessitating a redesign of the floodwall foundation.

In the project's current state, the yard is fully functional and operating as designed. It is important to note that while the new relay buildings are not occupied by Transit employees, the new signal system is being utilized via a remote setup. Except for the Con Edison vault area, the yard is protected from an extreme weather event.

ET100314: Sandy Mitigation: 207th Street Sewers		
Project Budget at Award: $152.3	**Current Budget: $159.8M**	**EAC: $153.7M**
Substantial Completion at Award: February 2024	**Current Substantial Completion: November 2024***	
Trigger: Schedule	**Phase: Construction**	**Phase Complete: 85%**

*Substantial Completion date reported in error as June 2024 in other documents.

This contract's scope calls for the construction of a Department of Environmental Protection (DEP) interceptor sewer outside of NYCT's 207th Street Yard to replace the existing sewer system within the yard. The work includes providing resiliency and flood mitigation by relocating DEP owned sewers from within the 207th Street yard, installation of an interceptor sewer pipe and two regulators along 10th Avenue & 215th Street, relocation of utilities, reconnection of internal yard facility drainage to a combined sewer utilizing new pumping stations in the yard, installation of pneumatic ejector pump pits in the Overhaul and Inspection Shops, installation of back water valves, abandoning and modifying manholes at track level, and reinforcing the existing DEP outfall pipes throughout the yard.

During the Fourth Quarter 2023, the Substantial Completion date was delayed nine months, from February 2024 to November 2024, mainly due to the third-party utilities and agencies. The project encountered extensive delays starting in June 2020 due to utility companies' delays in performing their relocation work. These delays amounted to 428 days in 2021. The team recovered a significant number of days, 151, by resequencing the project multiple times with the contractor, working through a DSNY embargo, adding manpower and working additional shifts. The current SC date of November 2024 was officially negotiated in February 2024. The new SC date was known last quarter but not documented until the negotiation was complete.

ET100315: Sandy Mitigation: Resiliency Improvements at Westchester Yard		
Project Budget at Design Start: $77.7M	**Current Budget: $77.7M**	**EAC: $77.7M**
Original Design Completion: October 2022	**Current Design Completion: March 2025**	
Trigger: Schedule	**Phase: Design**	**Phase Complete: 60%**

In response to flooding and system disruptions caused by Superstorm Sandy in October 2012, this project will provide protection against storm surges due to a Hurricane Cat 2 +3' flood event. The project involves installation of the following elements:

- Protection of Westchester Yard from storm surge vulnerabilities.
- Construction of a perimeter flood wall and subgrade seepage cutoff wall.
- Sealing manholes within yard and providing backflow prevention for sewers.

During the Fourth Quarter 2023, the project's Design Completion date was delayed a further 16 months, from November 2023 to March 2025, due to a change in scope. In the 4th quarter 2023, a significant increase in scope was identified due to DEP discharge rate requirements. A revised RTA is being developed for Consultant Services to proceed. Until the additional funding is approved, the current design completion of March 2025 is at risk.

Bundled Contract – New Substations at New Dorp and Clifton Stations		
Project Budget at award: $55.4M	**Current Budget: $55M**	**EAC: $58.2M**
Substantial Completion at Award: July 2020	**Current Substantial Completion: December 2024**	
Trigger: Schedule	**Phase: Construction**	**Phase Complete: 98%**

This bundled contract includes the following ACEPs:

- S7070106: New Power Substation: New Dorp
- S7070107: New Power Substation: Clifton

This project will construct two new substations on Staten Island, in the vicinity of the New Dorp and Clifton stations. The additional substations will augment the electrical power requirements in these areas, thus improving the reliability of train service along the right-of-way.

In the Fourth quarter 2023, the Substantial Completion date was delayed a further 12 months, from December 2023 to December 2024, due to coordination with another project. SIRTOA used the capacity in the existing system, which required the substations to be on a new SIR SCADA network. Subways is installing the new SCADA network and expects it to be completed by mid-October 2024. The substations will be commissioned approximately thirty days after the SCADA network has been built.

T8120304: Roof Topping and Expansion Joints Replacement at Michael J Quill Depot		
Project Budget at Award: $12.1M	**Current Budget: $12.1M**	**EAC: $12.1M**
Substantial Completion at Award: September 2023	**Current Substantial Completion: June 2024**	
Trigger: Schedule	**Phase: Construction**	**Phase Complete: 95%**

This project's scope will replace over-aged or deteriorated sections of roof deck, concrete curb, and expansion joints in kind. The project was designed to be completed in four phases because the buses are in service 24/7 and are parked both on the roof and inside the depot.

During the Fourth Quarter 2023, the Substantial Completion date was extended a further five months, from January 2024 to June 2024, due to contractor quality performance. In December 2023, it became apparent water was leaking to the depot floor through the Expansion Joints. MTA C&D, the Designer of Record & the expansion joint manufacturer had a walk through at the site and a report was created. The report indicated the contractor did not follow the manufacturer's recommended method of installation. The contractor has been directed to remove the installed expansion joints and reinstall as per specifications.

T7120321 – Window and Façade Replacement at East New York Bus Depot		
Project Budget at Award: $18.1 M	**Current Budget: $18.1M**	**EAC: $19.3M**
Substantial Completion at Award: February 2021	**Current Substantial Completion: June 2024**	
Trigger: Schedule	**Phase: Construction**	**Phase Complete: 85%**

This project shall provide all labor, materials, tools, and equipment necessary for the replacement of all the exterior window units and for the cleaning, repairing, and restoring, the entire brick facade at the East New York Bus Depot. The work includes but is not limited to general construction, masonry, and minor electrical work.

During the Fourth Quarter 2023, the Substantial Completion date was extended a further five months, from October 2023 to March 2024, due to coordination issues, poor planning, and procurement challenges encountered by the contractor. Various issues have emerged during the construction phase, including incorrect installation of materials such as parapet wall reinforcement and windows. Rectifying these discrepancies has required additional time and resources causing the project's delays.

Subsequent to the reporting period, SC was pushed out, an additional three months, to June 2024.

T7060506: Rehab Forsyth St Vent Plant		
Project Budget at Award: $89.26 M	**Current Budget: $92.7M**	**EAC: $87M**
Substantial Completion at Award: October 2022	**Current Substantial Completion: June 2024**	
Trigger: Schedule	**Phase: Construction**	**Phase Complete: 98%**

The contract's scope includes construction of a new emergency ventilation fan plant at Forsyth Street and Delancey Street. The scope also includes upgrading the equipment at the Stanton Street and Elizabeth Street fan plants and changing the remote controls from the Power Control Center (PCC) to the Railroad Control Center (RCC) via fiber optic cable and intra network.

During the Fourth Quarter 2023, the Substantial Completion date was delayed a further seven months, from November 2023 to June 2024, due to the inability to schedule the General Orders necessary for the completion of the fiber optic loop. It has since been scheduled for March 2024. After the fiber optic loop is completed, the Stanton Street fan plant, and then the Elizabeth Street fan plant, will be taken out of service for testing and upgrade and its remote controls transferred to the RCC, while work at the Forsyth Street fan plant will continue. After successful testing, the Forsyth fan plant will be commissioned and put in service.

Bundled Contract- Rehabilitation of Pump Rooms #s 1028 & 1029, Adams Street & Willoughby Streets		
Project Budget at Award: $18.3M	**Current Budget: $19.1M**	**EAC: $19.9M**
Substantial Completion at Start: December 2023	**Current Substantial Completion: December 2024**	
Trigger: Schedule	**Phase: Construction**	**Phase Complete: 52%**

This bundled contract includes the following ACEPs:

- T8060521: Rehabilitation of Pump Room #1028 – Willoughby Street/BWY
- T8060522: Rehabilitation of Pump Room #1029 – Adams Street/BWY

The scope includes removal of existing mechanical and electrical equipment, replacement of the concrete floor, sliding door and hatches, installing new pumps, injection of grout to prevent water leaks into pump rooms, installing new sump lights and new suction pipes, and repair deteriorated steel columns.

During the Fourth Quarter 2023, the Substantial Completion date was extended 12 months, from December 2023 to December 2024, due to unforeseen site conditions. The contract documents call for four steel columns to be repaired. During construction, it was discovered that an additional 14 concrete encased steel columns were severely deteriorated and needed to be replaced/repaired and requires the reconfiguration of the pump layout due to existing conditions in the pump room. This work requires three additional General Orders (GOs), which are not part of the original contract. EAC will not be affected by these additional GOs.

T8060505: Nostrand Ave. Line Deep Well Phase 2 Rehabilitation		
Project Budget at Award: $22.3M	**Current Budget: $22.3M**	**EAC: $22.3M**
Substantial Completion at Start: March 2024	**Current Substantial Completion: Dec. 2024**	
Trigger: Schedule	**Phase: Construction**	**Phase Complete: 56%**

This deep well renewal will improve the reliability of train service on the Nostrand Avenue Line by lowering the groundwater along the right-of-way, so that water in the track trough does not rise to bridge the signal circuit Insulated Joint, which would trigger all the signal stops and stop train traffic. The scope includes the removal, disposal, and replacement of the old pumping equipment and electrical power equipment.

During the Fourth Quarter 2023, the Substantial Completion date was extended eight months, from March 2024 to December 2024, due to delays in Con Edison's de-energization of the deep wells to remove old power equipment and ConEd's re-energization to power the new equipment.

On a parallel critical path is the Factory Acceptance Tests (FATs) of custom equipment. The testing started in May 2023, with FATs continuing through November 2024. The installation of the pumps and ensuing commissioning are forecast to be completed in December 2024.

Systems Business Unit Program Overview

The C&D Systems Business Unit (BU) is responsible for the delivery of all C&D Systems projects and supporting other Business Units in implementing C&D Systems best practices. The C&D Systems BU manages projects totaling $4B. This includes 80 active projects with a budget of $2.3B, including 28 projects in construction ($1.1B), per the Project System Report (PSR). In addition, the C&D Systems BU manages two major public/private partnership license agreements that are not included in the PSR namely, the $1B Cellular/WiFi Expansion, and the $300M Ad concession project.

Some of the major customer facing programs include Help Points in all stations, Public Address/Customer Information Systems and Countdown Clocks, OutFront Digital Information & Advertising Screens, and Wi-Fi & Cellular Services in all subway stations, as well as the networking infrastructure needed to support them. Some of the major projects under construction include installing a new Enhanced Emergency Booth Communication System, upgrading the power Supervisory Control and Data Acquisition system for the BMT Division and building an Emergency Power Control Center, installing Closed Circuit TV cameras in stations, and upgrading the Fire Alarm system & sprinklers & Emergency Alarms. The C&D Systems Business Unit continues to identify and address issues at the program level. Due to attrition and the slow pace of hiring, the C&D Systems Business Unit continues to evaluate its current organizational structure along with utilization of consultant support and streamlining workflows.

The Independent Engineering Consultant's (IEC) Traffic Light Report tracks 28 tasks (ACEPs) in the C&D Systems Business Unit. Of those, four projects (14%) were flagged red for schedule delays.

Systems BU Response to the IEC Traffic Light Report

Individual project descriptions

ET040317: Upgrade Emergency Booth Comm System		
Project Budget at Award: $78.4M	**Current Budget: $78.3M**	**EAC: $79.2M**
Substantial Completion at Award: December 2020	**Current Substantial Completion: December 2024**	
Trigger: Schedule	**Phase: Construction**	**Phase Complete: 95%**

This project will upgrade the Emergency Booth Communication System (EBCS) and Mass Call in all station Agent Booth locations provided by the Stations Division. The EBCS is the life safety communication system that provides emergency and security communications between the Rail Control Center (RCC) and personnel in all 464 Station Agent Booths.

During the Fourth Quarter 2023, the Substantial Completion date was pushed out a further nine months, from December 2023 to September 2024, due to the delayed start and ongoing integration of elevator and other customer assistance intercoms; reaching agreement with stakeholders to start the 6-month in-service durability testing; network configuration issues affecting the start of the iPad integration pilot; on-going challenges resolving network issues at some stations; completion of training and factory acceptance testing. These and any emergent issues are being timely addressed via multiple weekly meetings between the contractor, MTA stakeholders, Verizon and senior C&D management. A change order for the integration of Elevator Emergency Two-way Communications System intercoms into the new EBCS is planned and will further delay the Substantial Completion, an additional three months, to December.

T8080615: Liftnet Transition to Ethernet; Phase 2 - Package 1		
Project Budget at Award: $8.92M	**Current Budget: $8.9M**	**EAC: $6.3M**
Substantial Completion at Award: August 2023	**Current Substantial Completion: November 2024**	
Trigger: Schedule	**Phase: Construction**	**Phase Complete: 84%**

This project (Phase 2 - Package One) will upgrade the communication methodology from dial-up telephone to Ethernet for the LiftNet system which provides the remote monitoring of 45 elevators and 10 escalators, for a total of 55 devices at 21 stations, systemwide. The explanation for the schedule delay of eight months, from December 2023 to September 2024, is provided in the variance report for the Liftnet Transition project (Phase 2 - Package 2), which is highlighted below as both projects are related.

Subsequent to the reporting period, the SC date was pushed out, an additional two months, to November 2024.

T8080616: Liftnet Transition to Ethernet; Phase 2 - Package 2		
Project Budget at Award: $7.6M	**Current Budget: $7.6M**	**EAC: $7.5M**
Substantial Completion at Award: April 2024	**Current Substantial Completion: January 2025**	
Trigger: Schedule	**Phase: Construction**	**Phase Complete: 65%**

This project (Phase 2 - Package Two) will upgrade the communication methodology from dial-up telephone to Ethernet for the LiftNet system which provides the remote monitoring of 27 elevators and 29 escalators, for a total of 56 devices at 22 stations, systemwide.

During the Fourth Quarter 2023, the Substantial Completion was extended nine months, from April 2024 to January 2025, due to capacity issues with the existing servers. The existing two LiftNet servers are currently full and cannot accept the integration of any more equipment. Consequently, the projects have been at a standstill, since October 2023, awaiting a resolution. MTA & the vendor have since come to an agreement to provide and install a third server. Once the new server is placed in service, the work will resume for Package 1 and subsequently Package 2.

The Mitigation plan includes a commitment from E&E and the vendor for a 3-day per week conversion schedule to help recover lost time.

T8080641: Asynchronous Fiber Optic Network Ring F		
Project Budget at Award: $29.1M	**Current Budget: $28.4M**	**EAC: $26M**
Substantial Completion at Award: March 2023	**Current Substantial Completion: September 2024**	
Trigger: Schedule	**Phase: Construction**	**Phase Complete: 83%**

This project will furnish and install equipment for upgrading the Asynchronous Fiber Optic Network to current Synchronous Optical Network (SONET) technology on the existing F-Ring.

During the Fourth Quarter 2023, the Substantial Completion was extended three months, from December 2023 to March 2024, due to delayed implementation of the new Network Monitoring System because of Electronic Maintenance Division (EMD) manpower constraints.

Subsequent to the reporting period, the SC date slipped an additional six months to September 2024.

Signals / Train Controls Business Unit Program Overview

The Signal's Business Unit currently oversees 35 active projects, including 14 projects in construction, with a budget of $7.6B. Notable projects under construction include CBTC QBL West, CBTC QBL East, CBTC 8th Ave, CBTC Culver Line, and CBTC Crosstown Line.

The IEC's Traffic Light Report currently tracks 24 tasks (ACEPs) in the Signal's program. Of those, 3 tasks (13%) were flagged red, representing 1 project. The table below describes why this project task (ACEPs) was flagged, and what C&D is doing to mitigate.

The BU is also seeking to identify and remediate issues at the program level, i.e. across projects.

Signals / Train Controls BU Response to the IEC Traffic Light Report

Individual project descriptions

Bundled Contract: CBTC Queens Boulevard Line West - Phase 1*		
Bundled Contract Budget at award: $129M	**Current Budget: $148.6M**	**EAC: $160.3M**
Substantial Completion at Award: March 2021	**Current Substantial Completion: December 2024**	
Trigger: Schedule	**Phase: Construction**	**Phase Complete: 88%**

*** Current Active Tasks**

This bundled contract includes the following ACEPs:

- T6080319: CBTC Queens Boulevard Line West Phase 1
- T7080342: CBTC: 8th Avenue Line Equip 112 R160 Cars (26 units)
- T7080350: CBTC Queens Boulevard Line West Phase 1 TA Labor

This project will install Communications Based Train Control (CBTC), to replace the existing conventional signal system, on the Queens Boulevard Line. The extent of the project is from 50e St. in Manhattan to Union Turnpike in Queens. The QBL is the third line to be upgraded to CBTC technology. This is the first CBTC project that incorporates CBTC on four lines E, F, M, and R. It is also the first project to accomplish interoperability between two suppliers.

During the Fourth Quarter 2023, the Substantial Completion date was extended a further 12 months, from December 2023 to December 2024, due to ongoing software issues. The Automatic Train Supervision (ATS) software has been delayed due to challenges encountered with weakness in ATS to Programable Logic Controller (PLC) redundancy issues that triggered switch overs which causes the PLC to lose the communications intermittently. When ATS 5C was deployed in Third Quarter 2023, this version experienced regression in the sense that the user management software couldn't handle the number of simultaneous users during the ATS operation. Version 6A was first deployed in Fourth quarter 2023 and there were noticeable issues encountered with ATS to server communications that are still been investigated by the contractor. The contractor and project team have set up test equipment, in the various relay rooms, to capture the incidents and acquire more data to further the investigation.

NYCT Department of Subways Program Overview

NYCT Department of Subways conducts a range of in-house capital work, including tracks and switches, as well as employee facilities. The IEC's Traffic Light Report flagged six Track project tasks (ACEP) in the NYCT DOS program.

NYCT often schedules track work to take advantage of General Orders already obtained for other projects, a practice known as piggy-backing. This saves resources for the agency and reduces service disruptions for our customers. Unfortunately, this dependence on other projects' schedules makes the track program more vulnerable to schedule changes.

It should be noted that when there is no available track access for some projects, the in-house track workforces will schedule work at other locations where track access is available. The in-house track workforce has this flexibility to be opportunistic by shifting their resources to other locations that are track accessible assuming they have the material and resources on hand to do the work.

NYCT Department of Subways Response to the IEC Traffic Light Report

Individual project descriptions

T8050208: 2020 Mainline Track Replacement – Flushing Line		
Project Budget at award: $59.9M	**Current Budget: $59.9M**	**EAC: $59.9M**
Substantial Completion at Award: December 2021	**Current Substantial Completion: July 2024**	
Trigger: Schedule	**Phase: Construction**	**Phase Complete: 92%**

This project will reconstruct segments of mainline tracks, along the Flushing Line, that have reached the end of their useful life. Locations were determined based on the latest condition survey. In addition to the track scope, the signals and contact rails will also be replaced as required.

During the fourth quarter 2023, the Substantial Completion date was extended a further four months, from March 2024 to July 2024, due to material shortage issues. The material shortage was due to lack of bridge clips. Orders are pending and the vendors were unable to fill the orders in a timely manner.

T8050252: 2022 Mainline Track Replacement – Myrtle Line		
Project Budget at award: $9.2M	**Current Budget: $9.2M**	**EAC: $9.2M**
Substantial Completion at Award: January 2023	**Current Substantial Completion: March 2024**	
Trigger: Schedule	**Phase: Construction**	**Phase Complete: 81%**

This project will reconstruct segments of mainline tracks, along the Myrtle Line, that have reached the end of their useful life. Locations were determined based on the latest condition survey. In addition to the track scope, the signals and contact rails will also be replaced as required.

During the fourth quarter 2023, the Substantial Completion date was extended a further four months, from October 2023 to February 2024, due to the unavailability Emergency Protection Rail. material required to complete the work.

Subsequent to the reporting period, the SC date was pushed out an additional month to March 2024.

T8050268: 2023 Mainline Track Replacement – 6th Ave / Culver Line		
Project Budget at award: $53M	**Current Budget: $102.6M**	**EAC: $102.6M**
Substantial Completion at Award: April 2024	**Current Substantial Completion: March 2025**	
Trigger: Schedule	**Phase: Construction**	**Phase Complete: 74%**

This project will reconstruct segments of mainline tracks, along the 6th Ave / Culver Line, that have reached the end of their useful life. Locations were determined based on the latest condition survey. In addition to the track scope, the signals and contact rails will also be replaced as required.

During the fourth quarter 2023, the Substantial Completion date was extended 10 months, from April 2024 to March 2025, due to additional scope of work added to this contract because of the poor condition of the tracks and to take advantage of track access availability.

T8050274: 2023 Mainline Track Replacement – Astoria Line		
Project Budget at award: $16.8M	**Current Budget: $16.8M**	**EAC: $16.8M**
Substantial Completion at Award: July 2024	**Current Substantial Completion: January 2025**	
Trigger: Schedule	**Phase: Construction**	**Phase Complete: 45%**

This project will reconstruct segments of mainline tracks, along the Astoria Line, that have reached the end of their useful life. Locations were determined based on the latest condition survey. In addition to the track scope, the signals and contact rails will also be replaced as required.

During the fourth quarter 2023, the Substantial Completion date was extended six months, from July 2024 to January 2025, due to the unavailability of General Orders to complete the panel work. Additionally, this line has two locations one of which was yet to be scheduled because of GO availability thus resulting in the 6-month extension of the project.

T8050336: 2023 Mainline Switch Replacement – 8th Ave / Fulton Line		
Project Budget at award: $40.7M	**Current Budget: $40.7M**	**EAC: $40.7M**
Substantial Completion at Award: June 2024	**Current Substantial Completion: April 2025**	
Trigger: Schedule	**Phase: Construction**	**Phase Complete: 20%**

This project will replace mainline switches, along the 8th Ave / Fulton Line, that have reached the end of their useful life. Locations were determined based on the latest condition survey. In addition to the switches scope, signal and cable work will also be completed as needed.

During the fourth quarter 2023, the Substantial Completion date was extended 10 months, from June 2024 to April 2025, due to the unavailability of General Orders to complete the switch work. Additionally, this line has two locations one of which was just scheduled in December 2023 thus resulting in a 10-month extension of the project.

NYCT In-house Department Response to the IEC Traffic Light Report

Individual project descriptions

T6160705: Employee Facility Rehab: RTO Chambers St – Nassau Loop		
Project Budget at award: $17.8M	**Current Budget: $18.7M**	**EAC: $19.7M**
Substantial Completion at Award: February 2022	**Current Substantial Completion: March 2024**	
Trigger: Schedule	**Phase: Construction**	**Phase Complete: 98%**

This project will rehabilitate NYC Transit's Rapid Transit Operations Construction Flagging facility at the Chambers Street station, on the Nassau Loop. Scope includes demolition of the existing facility and construction of a newly designed facility including locker rooms, toilets, crew room, offices, storage rooms, installation of new mechanical systems including a new water service, fire suppression, ventilation and sewage ejector.

During the Fourth Quarter 2023, the Substantial Completion date was further delayed three months, from December 2023 to March 2024, due to a delay with the Fire Department inspecting the sprinkler system and requiring the water flow test to be redone. The testing has been completed and the project reached substantial completion in March 2024.

Long Island Rail Road Program Overview

The LIRR Business Unit currently oversees 89 active projects with a budget of $3.1B, including 57 projects in construction ($2.1B). Notable projects under construction include Hall Interlocking, Queens Interlocking, and ADA Packages 1 and 2. Non-C&D LIRR projects tracked by the LIRR BU include 57 active projects with a budget of $1.4B.

The IEC's Traffic Light Report currently tracks 60 tasks in the C&D Long Island program. Of those, three tasks (5%) were flagged red, representing three projects. The reports below describe why these project tasks were flagged, and what C&D is doing to mitigate.

Long Island Rail Road Response to the IEC Traffic Light Report

Individual project descriptions

EL0602ZD: West Side Storage Yard Restoration		
Project Budget at award: $43.3M	**Current Budget: $44.0M**	**EAC: $44.0M**
Substantial Completion at Award: April 2019	**Current Substantial Completion: February 2024**	
Trigger: Schedule	**Phase: Construction**	**Phase Complete: 75%**

This project includes the replacement of various systems damaged by Superstorm Sandy. Some of the components which are being replaced include: third rail disconnect switches, protection boards, and brackets; Feeder Cables, bonding cables, switch machines, signal cables and racks, switch timbers; tower switch controls and signal equipment; communication radio base stations and combiner networks, fiber optic distribution panel, and fire alarm detection system.

During the Fourth Quarter 2023, the forecasted Substantial Completion date was extended three months, from December 2023 to March 2024, due to outages planned and scheduled in early 2023 being missed due to the delayed opening of Grand Central Madison (GCM).

Subsequent to the reporting period, outages were completed in the First Quarter 2024 and SC was achieved in February 2024.

L8020417: Tactile Strips – Various Locations		
Project Budget at award: $12.8M	**Current Budget: $12.8M**	**EAC: $12.8M**
Substantial Completion at Award: December 2024	**Current Substantial Completion: June 2026**	
Trigger: Schedule	**Phase: Construction**	**Phase Complete: 52%**

This project includes the installation of tactile strips and Watch the Gap signs along the track side of each platform at various stations throughout the system. Tactile Warning Strips are safety features that will improve safe use by the visually impaired. Tactile is a horizontal surface preparation, installed along the edge of station platforms, that is easily detectable underfoot and by cane. The project also includes scarification and minor concrete repairs to prepare the concrete platform for tactile installation.

During the Fourth Quarter 2023, the forecasted Substantial Completion date was extended 18 months, from December 2024 to June 2026, due to the reallocation of manpower. The original Substantial Completion date was forecasted with the assumption that Force Account (F/A) would provide two gangs in 2023 and 2024. However, it

has been determined F/A is unable to meet this commitment because there is only one gang available for the remainder of the project.

L8050103: Fiber Optic Network		
Project Budget at award: $20.0M	**Current Budget: $18.0 M**	**EAC: $24.0M**
Substantial Completion at Award: December 2024	**Current Substantial Completion: December 2025**	
Trigger: Cost and Schedule	**Phase: Construction**	**Phase Complete: 48%**

This project includes the installation of a new Cisco Network Convergence System that will replace 114 nodes which were installed in a previous Capital Program. The equipment needs to be replaced due to the discontinuance of parts and support by the manufacturer. The large quantity of existing nodes and the magnitude of costs associated with replacing the system necessitates the replacement be performed in a phased manner by the Communications department. The scope also includes the installation of approximately 60,000 feet of fiber optic cable, along with the associated supporting infrastructure, to support fiber plant redundancy.

During the Fourth Quarter 2023, there was a budgetary shortfall of $6M and schedule delay of 12 months due to additional scope, escalation of cost, and the previous pause in progressing select projects. The Communications department was originally scheduled to install 60,000 feet of fiber optic cable but upon inspection there were more problematic areas than originally thought and the revised scope calls for 150,000 feet along the Port Washington, West Hempstead, and Main Line branches. Resolution to the elevated cost index and schedule delay is expected once the additional funding has been approved.

Bridges and Tunnels Business Unit Program Overview

The B&T Business Unit (part of C&D) currently oversees 85 active projects with a budget of $5.3B, including 20 projects in construction, with a budget of $2.12B. Significant projects include the Structural Retrofit of the Suspended Spans at the Robert F. Kennedy Bridge, Tower Fender Replacement and Tower Painting work at the Throgs Neck Bridge, Main Cable Dehumidification at the Verrazzano Narrows Bridge and Reconstruction of the Brooklyn Upper-Level Ramps at the Verrazzano Narrows Bridge.

The IEC's Traffic Light Report currently tracks 40 B&T tasks (ACEPs) spanning two capital programs. Of those, 1 (3%) project under B&T's management was flagged red. The report below describes why this project triggered a variance and what B&T is doing to mitigate.

B&T BU Response to the IEC Traffic Light Report

Individual project descriptions

D701TN53: Approach Viaduct Seismic Retrofit and Structural Rehab		
Project Budget at award: $212M	**Current Budget: $212M**	**EAC: $184M**
Substantial Completion at Award: August 2023	**Current Substantial Completion: November 2023**	
Trigger: Schedule	**Phase: Construction**	**Phase Complete: 100%**

This project will provide construction services for the replacement, repair and painting of deteriorated steel superstructure members and replacement of all bearings on the elevated approaches, repairs to the concrete piers over SUNY Maritime campus parking area, and electrical upgrades at the Throgs Neck Bridge.

Over the Third and Fourth quarters 2023, the Substantial Completion date was extended a total of three months, from August 2023 to November 2023, due to a significant number of inclement weather days during the summer of 2023. The inclement weather delayed the painting activities to the fall of 2023, and they were performed in October and November.

The project reached Substantial Completion in November 2023 and was completed within budget.

Bus Procurements Response to the IEC Traffic Light Report

Individual project descriptions

Bundled Contract - Purchase of 135 Standard Diesel (Nova)		
Project Budget at award: $96.8M	**Current Budget: $96.8M**	**EAC: $96.4M**
Substantial Completion at Award: June 2023	**Current Substantial Completion: September 2024**	
Trigger: Schedule	**Phase: Construction**	**Phase Complete: 37%**

This bundled contract includes the following ACEPs:

- U7030219 – Purchase 25 Standard Diesel Buses
- U8030216 – Purchase 25 Standard Diesel Buses
- U8030217 – Purchase 85 Standard Diesel Buses

The purpose of this project is the purchase of 135 standard diesel buses by MTA NYC Transit for MTA Bus Company. The buses will be used for the replacement of the fleet throughout the City that are beyond their useful life. The buses will be designed to operate in revenue service for a useful life of 12 years or 500,000 miles and will meet Environmental Protection Administration emission standards as well as Americans with Disabilities Act standards. The work is being performed in Plattsburgh, NY.

During the Fourth Quarter 2023, the Substantial Completion date was delayed a further eight months, from October 2023 to June 2024, due to the installation of the back ordered parts taking longer than expected. 78 of the 135 buses have been delivered, but the material availability resulted in production delays on the balance of buses to be delivered.

Subsequent to the reporting period, the SC date was extended an additional three months to September 2024.

Projects in CPC's Risk-Based Monitoring Program

(4th Quarter 2023 Traffic Light Report – Period Ending December 31, 2023)

The following projects in CPC's Risk-based Monitoring Program are currently reported on by the responsible MTA Business Unit in accordance with the CPC Work Plan schedule and are continually monitored by the Independent Engineering Consultant. Monitored projects from multiple Capital Programs are included in the Quarterly Traffic Light Report. The list is subject to periodic review and adjustment by the MTA.

Projects in CPC's Risk-Based Monitoring Program

Capital Programs			Project
2010-14	2015-19	2020-24	
Integrated Capital Projects			
	X	X	Second Avenue Subway - Phase 2
	X	X	Penn Station Access
Signals and Communications			
X			Communications Based Train Control - Queens Blvd. West- Phase 1
		X	Communications Based Train Control – Queens Blvd East
	X		Communications Based Train Control – 8th Ave Line
		X	Communications Based Train Control – Crosstown Line
	X		Communications Based Train Control – Culver Line
X	X		Replace Bus Radio System
Subway Car, Bus, and Rolling Stock Procurement			
	X	X	New Subway Car Procurement
	X	X	New Bus Procurement
	X	X	Commuter Rail Road Rolling Stock Procurement
Passenger Stations Program			
	X		OMNY New Fare Payment System – Phase 2
	X		ADA 149th St/Tremont Ave Stations
	X	X	ADA Accessibility Package 1
		X	ADA Accessibility Packages 2, 3, and 4
		X	ADA 68th St / Hunter College
		X	ADA Borough Hall / Water Condition Remediation
		X	Flushing Line Station Renewals

Projects in CPC's Risk-Based Monitoring Program

(4th Quarter 2023 Traffic Light Report – Period Ending December 31, 2023)

Capital Program			Project
2010-14	2015-19	2020-24	
Infrastructure / Shops and Yards			
		X	Jamaica Bus Depot
		X	Rockaway SGR-Hammels Wye / ROW / Elevated Structure
Line Structures and Track			
X			Jamaica Capacity Improvements Phase 1
		X	Jamaica Capacity Improvements Phase 2
Sandy Program			
Sandy Program			207th Street Yard Long Term Perimeter Protection
X			Sandy Mitigations - Coney Island Yard
X			Corona Yard Flood Mitigation
Commuter Railroads			
		X	LIRR – 9 Stations Accessibility
		X	MNR – GCT Trainshed Rehabilitation
		X	MNR – Park Avenue Viaduct Replacement

Fourth Quarter 2023 TLR and Signals & Train Controls Business Unit Summary

- In the Fourth Quarter a total of 572 project tasks were reviewed in the TLR for Cost and Schedule adherence:
  - 34 in Design
  - 5 in Post-Design to Construction
  - 533 in Construction

- Of these:
  - 429 (75%) were Green
  - 77 (13%) had variances in prior quarters
  - 66 (12%) were Red

Of the 66 tasks that triggered a Key Performance Indicator (KPI) this quarter, 64 were for Schedule variances, 1 for Cost and 1 was triggered for both Cost and Schedule. In addition, 62 are in Construction and 4 are in Design.

- For every project with variances, C&D prepared a brief report that summarizes the issues encountered and the actions taken this quarter to mitigate the problem. The IEC reviewed the report content and worked with the project teams and Business Units in preparation of the final variance reports.

- It is important to note that in the TLR some projects are represented by multiple tasks which are assigned by C&D during funding preparation and when tasks are bundled prior to award. Each cost and schedule variance is identified by one red for each task.

- Overall, in the Fourth Quarter 2023 TLR, 33 individual projects triggered a total of 66 reds.

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Fourth Quarter 2023 TLR and Signals & Train Controls Business Unit Summary

- This quarter, 24 tasks in C&D's Signals and Train Controls Business Unit were reviewed in the TLR for Cost and Schedule variances.
  - 16 were Green
  - 5 triggered a variance in a prior quarter
  - 3 triggered a variance this quarter
- The IEC also undertakes more comprehensive risk-based monitoring of 5 individual CBTC projects from the Signals and Train Controls Business Unit and those IEC monitored project reports are included in this months CPC book.
- Signals and Train Control projects have triggered **4** variance reports over the previous 4 quarters.
- Major issues impacting Signals and Train Control projects in the TLR have chiefly affected project schedules and were caused by software and technology problems, limited technical support, poor contractor performance and delays to the fabrication, delivery and installation of equipment.

Contracts Department

Evan Eisland, Executive Vice President and General Counsel

PROCUREMENT PACKAGE
March 2024

PROCUREMENTS

The Procurement Agenda this month includes 5 actions for a proposed expenditure of $ 19.2 M.

Staff Summary

Subject	Request Authorization for Several Procurement Actions
Contracts Department Evan Eisland, Executive Vice President and General Counsel	

Date: March 20, 2024

Board Action

Order	To	Date	Approval	Info	Other
1	Capital Program Committee	3/25/24	X		
2	Board	3/27/24	X		

Internal Approvals

	Approval		Approval
X	Deputy Chief Development Officer, Delivery	X	President
X	Deputy Chief Development Officer, Development	X	Executive Vice President & General Counsel

Purpose

To obtain the approval of the Board to award several procurement actions and to inform the Capital Program Committee of these procurement actions.

Discussion

MTA Construction & Development proposes to ratify awards in the following category:

Schedules Requiring Majority Vote		# of Actions	$	Amount
K. Ratification of Completed Procurement Actions		5	$	19,222,801
	SUBTOTAL	5	$	19,222,801
	TOTAL	**5**	**$**	**19,222,801**

Budget Impact

The approval of these procurement actions will obligate capital and operating funds in the amounts listed. Funds are available in the capital program and operating budget for these purposes.

Recommendation

That the procurement actions be approved as proposed. (The items are included in the resolution of approval at the beginning of the Procurement Section.)

MTA Construction & Development

BOARD RESOLUTION

WHEREAS, in accordance with Sections 559, 2879, 1209 and 1265-a of the Public Authorities Law and the All Agency General Contract Procurement Guidelines, the Board authorizes the award of certain non-competitive purchase and public works contracts, and the solicitation and award of request for proposals in regard to purchase and public work contracts; and

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

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

NOW, the Board resolves as follows:

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

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

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

4. As to each action set forth in Schedule D, the Board declares competitive bidding impractical or inappropriate for the reasons specified therein, and ratifies each action for which ratification is requested.

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

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

March 2024

LIST OF RATIFICATIONS FOR BOARD APPROVAL

Procurements Requiring Majority Vote:

Schedule K. Ratification of Completed Procurement Actions (Involving Schedule E – J)
(Staff Summaries required for all items requiring Board approval)

1. **Skanska ECCO III, JV** **$ 5,000,000** ***Staff Summary Attached***
Contract No. MN-81933

MTA Construction and Development requests that the Board ratify a modification to furnish and install a new fire water tank at the Croton-Harmon Yard.

2. **DKT Contractors LLC** **$ 310,000** ***Staff Summary Attached***
Contract No. A37733

MTA Construction and Development requests that the Board ratify a modification for additional steel column repairs, a new structural slab and drain at stairs P8 and P9 at the 33rd Street Station on the Lexington Line.

3-4. **JTTC JV** **$ 12,743,164** ***Staff Summary Attached***
Contract No. C48704

MTA Construction and Development requests that the Board ratify two modifications for the repair of 157 additional sidewall columns, 34 additional roof beams and 2 struts on the Concourse Line between 161st Street and 205th Street in the Bronx.

5. **HNTB New York Engineering & Architecture, P.C.** **$ 1,169,637** ***Staff Summary Attached***
Contract No. PSC-21-3049A

MTA Construction and Development requests that the Board ratify a modification for additional detailed inspection of the orthotropic deck welds at three spans of the Robert F. Kennedy Bridge.

Staff Summary

Schedule K: Ratification of Completed Procurement Actions

Item Number: 1

Vendor Name (& Location)	Skanska-ECCO III 2, JV (East Elmhurst, NY)
Description	Construction for Design and Construction Services for the Harmon Shop Replacement - Phase V Stage 2
Contract Term (including Options, if any)	October 31, 2018 – April 30, 2023
Option(s) included in Total Amount?	☐ Yes ☐ No ☒ n/a
Procurement Type	☒ Competitive ☐ Non-competitive
Solicitation Type	☐ RFP ☐ Bid ☒ Other: Modification
Funding Source	☐ Operating ☒ Capital ☐ Federal ☐ Other:
Requesting Dept/Div & Dept/Div Head Name:	Delivery, Mark Roche, Deputy Chief Development Officer

Contract Number	**AWO/Modification #**
MN-81933	45

Original Amount:	$	365,093,000
Prior Modifications:	$	19,895,922
Prior Budgetary Increases:	$	0
Current Amount:	$	384,988,922
This Request:	$	**5,000,000**
% of This Request to Current Amount:		1.29%
% of Modifications (including This Request) to Original Amount:		6.81%

DISCUSSION:

The Contract provides for design and construction of the new Croton-Harmon Shop and associated facilities and equipment at the Croton-Harmon Yard. MTA Construction and Development ("C&D") requests that the Board ratify a Contract Modification to furnish and install a new 430,000-gallon fire water tank at the yard.

The existing fire water protection for the Croton-Harmon Yard is provided by two on-site fire water tanks that contain approximately 500,000 gallons of water. The Contract provided for a survey of and report on the yard's fire water system and a report on its condition. The final report, issued in October 2020, recommended that the onsite fire water storage capacity should be increased to provide sufficient fire protection for the new facilities constructed under the Contract. It was determined that an additional 430,000-gallon fire water tank was required to meet the additional need created by the Work of this Contract.

In order to mitigate the schedule impact of fabrication and delivery, authorization was obtained from the President of C&D on July 17, 2023, to commence the Work.

The Contractor submitted a proposal in the amount of $5,991,904. Negotiations resulted in agreement of a lump sum price of $5,000,000 which is considered fair and reasonable.

Staff Summary

Schedule K: Ratification of Completed Procurement Actions

Item Number: 2

Vendor Name (& Location)	
DKT Contractors LLC (Port Washington, NY)	
Description	
Stair Repairs S8, P8, P9 at 33rd Street Station on the Lexington Line (IRT) in the Borough of Manhattan	
Contract Term (including Options, if any)	
December 27, 2022 – August 26, 2023	
Option(s) included in Total Amount?	☐ Yes ☐ No ☒ n/a
Procurement Type	☒ Competitive ☐ Non-competitive
Solicitation Type	☐ RFP ☐ Bid ☒ Other: Modification
Funding Source	
☐ Operating ☒ Capital ☐ Federal ☐ Other:	
Requesting Dept/Div & Dept/Div Head Name:	
Delivery, Mark Roche, Deputy Chief Development Officer	

Contract Number	**AWO/Modification #**
A37733	1

Original Amount:	$	750,000
Prior Modifications:	$	0
Prior Budgetary Increases:	$	0
Current Amount:	$	750,000
This Request:	$	**310,000**
% of This Request to Current Amount:		41.3%
% of Modifications (including This Request) to Original Amount:		41.3%

DISCUSSION:

The Contract provides for the repair of stairs S8, P8 and P9 at the 33rd Street Station on the Lexington Line (IRT) in the Borough of Manhattan. MTA Construction and Development Company ("C&D") requests that the Board ratify Modification No. 1 to the Contract for additional steel column repairs, a new structural slab and drain at stairs P8 and P9.

The Contract required removal of the concrete risers of the stairs, leaving the structural slab. The combined thickness of the concrete risers and structural slab for a concrete stair is typically 12-14 inches. Upon the start of demolition of the topping slab for Stairs P8 and P9, the Contractor pierced through the structural slab at 5-6 inches. The Contractor was instructed to cease demolition and probe the slab, revealing that it was approximately 2.5 to 3.5 inches thick. Further investigation by MTA representatives, revealed that the slab thickness was notably thinner than anticipated, prompting a review of the supporting structure for the stair. This review revealed deteriorated steel columns and beams supporting the stair which appear to have been exposed to long-term water infiltration. These conditions weren't discovered until after the start of the work.

This modification includes installing temporary structural support and providing additional steel column repairs, a new structural slab and drain at stairs P8 and P9 at the 33rd Street Station.

The Contractor submitted a proposal in the amount of $377,395.20. Negotiations resulted in agreement of a lump sum price of $310,000 which is considered fair and reasonable. Agreement was also reached on an extension of time of 143 excusable and non-compensable calendar days, extending the Substantial Completion date from August 26, 2023, to January 16, 2024.

Staff Summary

Schedule K: Ratification of Completed Procurement Actions

Item Number: 3-4

Vendor Name (& Location)	
JTTC, JV (Great Neck, NY)	
Description	
Line Structure Component Repair Concourse, Line (IND) in the Borough of the Bronx	
Contract Term (including Options, if any)	
December 17, 2021 – March 16, 2024	
Option(s) included in Total Amount?	☐ Yes ☐ No ☒ n/a
Procurement Type	☒ Competitive ☐ Non-competitive
Solicitation Type	☐ RFP ☐ Bid ☒ Other: Modification
Funding Source	
☐ Operating ☒ Capital ☒ Federal ☐ Other:	
Requesting Dept/Div & Dept/Div Head Name:	
Delivery, Mark Roche, Deputy Chief Development Officer	

Contract Number	**AWO/Modification #**	
C48704	06 & 12	
Original Amount:	$	68,188,000
Prior Modifications:	$	5,659,068
Prior Budgetary Increases:	$	0
Current Amount:	$	73,847,068
Modification No. 06	$	10,600,000
Modification No. 12	$	2,143,164
This Request:	**$**	**12,743,164**
% of This Request to Current Amount:		17.26%
% of Modifications (including This Request) to Original Amount:		26.99%

DISCUSSION:

This Contract provides structural component repairs on the Concourse Line between 161st Street and 205th Street in the Bronx. MTA Construction and Development ("C&D") requests that the Board ratify two modifications which provide for the repair of an additional 157 sidewall columns (Modification No. 06) and for the repair of an additional 34 roof beams and 2 struts (Modification No. 12).

Modification No. 06

The Contract calls for the repair of 286 steel sidewall columns on a unit price basis. The Contractor was instructed early in the Contract to remove the concrete encasement from additional suspect columns and survey the steel. Following removal of the concrete encasement from the suspect columns, field surveys were performed which identified 157 additional sidewall columns requiring immediate repair. This field condition could not have been known until after removal of the concrete encasement. Additionally, as Contract work for the repair of steel sidewall columns was being performed pursuant to the Contract unit price items, it became apparent that the unit price items, which were based solely on tonnage of steel installed, and the typical details provided by MTA in the Contract for the repair work, did not fully reflect the extent of the concrete encasement demolition and restoration work required to repair the sidewall columns.

This modification consists of a credit for the remaining quantities associated with two Contract unit price items for full-length sidewall column repair and partial-length sidewall column repair and replaces the unit price item with a negotiated lump sum amount, based on the Work necessary as reflected in actual field conditions revealed by the post award survey, for the repair of the remaining sidewall columns called for in the Contract and the repair of the additional repair of the 157 sidewall columns identified as needing repair during the post award survey.

The Contractor submitted a proposal in the amount of $12,129,220.05. Negotiations were held and agreement was reached on a lump sum cost of $10,600,000 which is considered fair and reasonable.

Modification No. 12

The contract calls for the repair of 30 roof beams and 2 struts on a unit price basis. During the structural steel repair work, an additional 34 roof beams and 2 additional struts were identified as exhibiting corrosion levels that required immediate attention. This modification addresses those repairs.

The Contractor submitted a cost proposal in the amount of $2,797,040.17. Negotiations were held and agreement was reached on a total cost of $2,143,164, which is considered fair and reasonable.

Staff Summary

Schedule K: Ratification of Completed Procurement Actions

Item Number: 5

Vendor Name (& Location)	HNTB New York Engineering & Architecture, P.C.
Description	2022 Biennial Inspections and Design of Miscellaneous Structural Repairs at the Robert F. Kennedy Bridge: Main Line
Contract Term (including Options, if any)	May 1, 2022 – December 31, 2024
Option(s) included in Total Amount?	☐ Yes ☐ No ☒ n/a
Procurement Type	☒ Competitive ☐ Non-competitive
Solicitation Type	☒ RFP ☐ Bid ☐ Other:
Funding Source	☒ Operating ☐ Capital ☐ Federal ☐ Other:
Requesting Dept/Div & Dept/Div Head Name:	B&T Business Unit, VP & Chief Engineer, Joe Keane

Contract Number	**AWO/Modification #**
PSC-21-3049A	2

Original Amount:	$	3,204,086.28
Prior Modifications:	$	216,336.02
Prior Budgetary Increases:	$	0
Current Amount:	$	3,420,422.30
This Request:	$	**1,169,636.92**
% of This Request to Current Amount:		34.2%
% of Modifications (including This Request) to Original Amount:		43.3%

DISCUSSION:

This Contract requires the consultant HNTB New York Engineering and Architecture, P.C. ("HNTB") to perform Biennial Inspections and Design of Miscellaneous Structural Repairs at the Robert F. Kennedy Bridge: Main Line (the "Contract"). MTA Construction and Development ("C&D") requests that the Board ratify a modification in the amount of $1,169,636.92 for additional detailed inspection of the orthotropic deck welds at three spans of the Robert F. Kennedy Bridge.

Under this Contract, HNTB performs mandated biennial bridge inspections. The mandated inspections assist in keeping bridge assets in a state of good repair as required by the New York State Department of Transportation and the Federal Highway Administration. The contract award includes an allowance for related services; specifically, interim or special inspections, additional inspections and testing, auxiliary design, auxiliary testing, scoping studies, and scour evaluations.

While performing the biennial inspection for calendar year 2022, HNTB uncovered cracks in the orthotropic deck welds and an additional inspection and testing of the entire orthotropic deck was necessary to promptly investigate and address the cracks/deck condition. HNTB was instructed to commence work on three task orders for the detailed inspection of orthotropic deck welds at Span 49, Span 50 and Span 51. The deterioration found as a result of these work orders were included in the contract scope for the design-build contract RK-19A, which was awarded in December 2023

Negotiations yielded an agreed upon amount of $1,169,636.92 (broken down as follows: $442,000.35; $416,008.54; and $311,628.03 for Spans 49, 50 and 51, respectively), which was deemed to be fair and reasonable.