



Metropolitan Transportation Authority

Capital Program Committee Meeting

April 2022

Committee Members

J. Lieber, Chair
N. Zuckerman, Vice Chair
A. Albert
J. Barbas
N. Brown
M. Fleischer
R. Glucksman
R. Herman
D. Jones
K. Law
D. Mack
H. Mihaltzes
J. Samuelsen
V. Tessitore

Capital Program Committee Meeting

2 Broadway, 20th Floor Board Room

New York, NY 10004

Monday, 4/25/2022

11:30 AM - 12:30 PM ET

1. SUMMARY OF ACTIONS

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2. PUBLIC COMMENTS PERIOD

3. APPROVAL OF MINUTES – MARCH 23, 2022

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**CONSTRUCTION & DEVELOPMENT
COMMITTEE ACTIONS and PRESENTATIONS
SUMMARY for APRIL 2022**

Responsible Department	Vendor Name	Total Amount	Summary of Action
Contracts	JTTC JV (a joint venture consisting of J-Track, LLC and TC Electric, LLC)	\$51,600,000	MTA Construction & Development requests Board approval to award a publicly advertised and competitively solicited contract (C48731) for design-build services for the repair of structural elements, construction of a new tunnel lighting room and accompanying tunnel lighting system and installation of fiber optic cables on the 8th Avenue Line in the amount of \$51,600,000.
Contracts	HNTB NY Eng. & Arch., P.C. AECOM USA, Inc. Stantec Consulting Services, Inc. WSP USA, Inc.	\$3,373,633 \$2,555,601 \$3,247,771 \$1,589,402	MTA Construction and Development requests Board approval to award four (4) publicly advertised and competitively solicited personal service contracts (PSC-21-3049A – PSC-21-3049D) for the 2022 Biennial Bridge Inspections at the Robert F. Kennedy and Verrazano-Narrows Bridges.

MINUTES OF MEETING
MTA CAPITAL PROGRAM COMMITTEE
March 28, 2022
New York, New York
12:00 P.M.

CPC members present:

Hon. Janno Lieber
Hon. Andrew Albert
Hon. Jamey Barbas
Hon. Norman Brown
Hon. Randolph Glucksman
Hon. Rhonda Herman
Hon. David Jones
Hon. Robert Linn
Hon. Haeda Mihaltses
Hon. Neal Zuckerman

Board members present:

Hon. Gerard Bringmann
Hon. Victor Calise

CPC members not present:

Hon. Michael Fleischer
Hon. Kevin Law
Hon. David Mack
Hon. John Samuelson
Hon. Vincent Tessitore, Jr.

MTA staff present:

Dana Hecht
Evan Eisland
Bob Laga
John McCarthy
Tim Mulligan
Steve Plochochi
Mark Roche
Tom Savio
Jamie Torres-Springer

Independent Engineering Consultant staff present:

Joe Devito
Elizabeth King

* * *

Chairman Lieber called the March 28, 2022 meeting of the Capital Program Committee to order at 12:41 P.M.

Public Comments Period

There were four public speakers in the public comments portion of the meeting: Bradley Brashears, PCAC regarding miscellaneous issues; Christopher Greif, NYC Transit Riders Council & ACTA LIRR ADA Task Force, regarding platforms and trains being level with each other; Charlton D'Souza, Passengers United, regarding miscellaneous LIRR-related issues; Jason Anthony, Amazon Labor Union, regarding NYCT stations-related issues.

Meeting Minutes

The minutes of the meetings held on January 24, 2022 and February 22, 2022 were approved, with noted corrections.

CPC Work Plan

There were no changes to the CPC Work Plan; upon motion duly made and seconded, the CPC Work Plan was approved.

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.

President's Opening Remarks

In his opening remarks President Torres-Springer noted that the advertisement list for 2022 contract procurements is now live on the MTA website, which shows in detail how C&D plans to meet the ambitious commitment target of \$8.1B, as he cited last month. He then provided updates for several notable projects in progress across the system. With respect to NYCT projects, C&D recently achieved Substantial Completion (SC) on the Grand Central – Times Square Shuttle, which as a result of this work is now fully ADA accessible, easier to navigate and faster to board; a new staircase entrance into the heart of Times Square at 42nd Street and Broadway has been completed; and a new street-to-concourse elevator in the 1 Times Square Building will be open to the public in May. Notable among MNR projects is the recently completed Dobbs Ferry culvert repair -- a remarkable project in response to an emergency situation caused by Hurricane Ida – which, by utilizing Design-Build project delivery, was

completed in less than 6 months; in addition, C&D began construction on three ADA projects on the Harlem Line at Hartsdale, Scarsdale, and Purdy's. With respect to LIRR projects, Mr. Torres-Springer reported that C&D achieved a key milestone at the Elmont/UBS Arena Station as part of LIRR 3rd Track Project with the overnight installation of a pedestrian overpass bridge; in addition, C&D is proceeding with accessibility improvements at multiple LIRR locations. Before turning to the Business Unit Leads for their detailed reports, Mr. Torres-Springer took note of MTA's long-standing practice of investing in bridges and tunnels, thus maintaining them in a state of good repair (unlike what is frequently reported regarding such facilities elsewhere in the country) and with respect to the Infrastructure Business Unit, he acknowledged their fine efforts on projects that, while not necessarily visible to the riding public, are nonetheless critical in keeping the system running -- the Coney Island Yard Project being a particular example.

C&D Capital Program Update

In his update on the Bridges and Tunnels Business Unit (BU), Mr. Keane stated that the bridge and tunnel facilities range in age from 50 to nearly 90 years old, and that over the past decades investments have been made proactively to ensure the State of Good Repair (SGR) of the facilities while continuously improving them to meet modern standards and to increase resiliency and accessibility. As a result, in accordance with FHWA ratings, these critical revenue-producing assets are in sound condition, which directly benefits the MTA's bond rating, thus lowering debt service costs and helping the MTA's overall financial position. In addition to maintaining SGR, these facilities are an integral part of the NYC regional transportation network and as such, B&T partners with regional transportation agencies to improve traffic flow, accessibility, and safety in the region whenever possible. In 2021 the B&T BU exceeded its commitment plan by 50% while meeting the planned completion goal; in 2022, the commitment goal is \$513M and the completion goal is \$560M. Mr. Keane then gave detailed updates on the following projects: Robert F. Kennedy Bridge (including improved bike and pedestrian accessibility); new Randall's Island ramps; Marine Parkway and Cross Bay Bridges; Verrazano Narrows Bridge; Throgs Neck Bridge; and Hugh L. Carey Tunnel.

In its Project Review of the Throgs Neck Bridge Orthotropic Deck Replacement, the IEC reported that overall, the project is 70% complete, well within budget at \$336M and remains on schedule for Substantial Completion (SC) in November 2022. According to the IEC, early construction issues, which had the potential to delay the project, are being mitigated by resequencing remaining activities and transferring suspender rope and main cable work to a future project with similar activities. The IEC stated its support of this minor scope transfer, which mitigates any delay to the current project, as well as minimizing impact to the public with continued lane closures. The IEC then expressed confidence in this project being completed on time with continued close management of the contractor. Regarding budget, the project is forecasting a final Estimate at Completion (EAC) of \$310M, and the IEC's cost review finds that the project can be completed within this amount. With respect to risk, the IEC stated that numerous risks have been closed and any remaining risks that could extend SC are minimal.

Mr. Laga provided an overview of the portfolio of critical projects within the Infrastructure BU, as well as a detailed update of four major projects currently underway. Mr. Laga noted that the

projects in the Infrastructure BU: upgrade power to the subway system; implement safety, security and upgraded communications systems in subway stations and depots; rehabilitate and rebuild Sandy-damaged facilities; and ensure structural integrity of the bridges used by customers and employees while on the subway. Currently the Infrastructure BU oversees more than 300 active capital projects with a total budget of approximately \$10B. In 2021, the Infrastructure BU successfully delivered 58 commitments with a total value of almost \$1B – this, despite staffing resource constraints and COVID-related budget constraints. Mr. Laga then cited the even more robust program planned for 2022, with 63 projected commitments with a total value of \$2B, and 75 projected completions worth \$1.7B. In his detailed report on the Coney Island Yard project, Mr. Laga noted that the project is on schedule and within budget, and as previously reported, a cost increase was related to added scope for the addition of four circuit breaker houses, saving time and money by allowing for proper sequencing of workflow and protection of newly constructed power feeds. Next Mr. Laga detailed the 207th Street Yard project, as well as a follow-up sewer relocation project at the site that was added at the direction of the Department of Environmental Protection, both of which are experiencing contractor- and third party-related delays, for which solutions are being expedited. Regarding Clifton Shop, Mr. Laga reported that on March 2nd a Temporary Certificate of Occupancy was granted and supply room personnel have begun moving in; SC is currently projected for this fall, however there is a potential for a few months delay, as well as budget increases, which the project team is working with the contractor to mitigate and finalize. And finally, with respect to the Bus Radio project, Mr. Laga noted that, as reported earlier, the project has experienced extensive delays due to contractor quality issues, Real Estate-related issues, and delay of build-out of bus radio sites. And while these issues are not yet fully resolved, progress is being made and milestones are being achieved.

Chairman Lieber then noted that he has visited all these major Infrastructure BU projects and regards the Coney Island Yard project as extraordinary in terms of scope, scale, complexity and operational challenges, referring to it as being brilliantly managed -- and he encourages fellow Board Members to visit the site at some point.

In its Project Review of the Coney Island Yard, the IEC reported that overall, the project is 80% complete, within the \$521M budget, and the revised SC date is holding at December 2022. Based on its review of project expenditures, remaining work, potential and executed change orders, remaining contingency and other cost categories, the IEC has confidence in the project finishing on budget. With respect to schedule, since the last report (October '21), field conditions have warranted a new installation approach for traction power cables, which will be monitored closely for any schedule impact. Other work, such as flood protection, drainage, signal work, and new circuit breaker houses are progressing well. According to the IEC, the top schedule risk is that the contractor may encounter underground utilities and/or obstructions where traction power cables are now planned, or track outages may not occur according to plan. Mitigation measures being undertaken include the contractor having performed underground utility surveys and drilling an increased number of test pits. Also, working closely with operations, C&D has developed a workable outage schedule. As an observation, the IEC notes that the project team has worked well to maintain the schedule and budget while coordinating work in MTA's largest operating yard.

In its Project Review of the 207th St. Yard & Shop Flood Mitigation, the IEC noted that the project is currently 72% complete and C&D's EAC remains \$633M. As previously reported, the project's earlier SC date of November 2023 is now forecast to be May 2024, a 6-month delay, due to late procurement and delivery of signal equipment. The IEC conducted a review of the budget and schedule and agrees with C&D's current EAC and SC. However, with project contingency mostly consumed, the IEC finds that the signal contractor's performance must improve, otherwise this will continue to impact the completion of this project. The top project risk, as cited by the IEC, is further schedule delay related to solid-state interlocking equipment delivery; the mitigation for this risk is that the contractor performs Factory Acceptance Testing in the field. Finally, the IEC offered the following observation: except for the signal system delivery and installation, major elements of the project are making good progress, including the flood wall, track improvements and facilities. Discussion of Siemens on 207th St. within the broader context of several CBTC projects then ensued.

In its Project Review of the 207th St. Sewer Replacement, the IEC reported that the SC was originally February 2024, but due to third party utility company delays, as well as the impact from a conflicting Department of Sanitation (DOS) moratorium, the SC is now January 2025, an 11-month delay (and a 3-month delay since the last report). The IEC then noted that the project is over budget, with an EAC of \$170M due to time impact cost associated with 3rd party utility delays in relocating lines; consequently, a budget modification is being prepared to address the cost difference. The IEC then recommended that the project further explore the potential to accelerate the concrete jet grout work for completion ahead of the DOS moratorium, which would restrict the project from accessing the street.

In its Project Review of the Clifton Shop, the IEC noted that the project is nearing completion at 94%, and that beneficial use has been achieved and the transfer of equipment and employees are underway. The project's SC date has moved from June to October 2022 -- a four-month adjustment since last report. The IEC then noted that SC may be delayed an additional two months based on its assessment of the time needed to complete finishes, testing and commissioning, and to vacate and demolish the old shop. The project budget is \$212M and C&D is evaluating the budget amount necessary to complete the project. The IEC then cited potential unforeseen hazardous materials discovered during demolition of the old shop as the top risk on the project; as a mitigation, additional test pits will be drilled once the old shop has been completely vacated. Finally, the IEC observed that, in addition to an improved work environment, SIR should realize efficiency gains from new and updated shop equipment and the new facility layout.

In its Project Review of the Bus Radio System (BRS), the IEC notes that recent progress made in achieving interim milestones, such as completion of the bus radio installation on the 200 pilot buses, is helping to move the project forward; in addition, completion of the pilot test, which has started, will be a major milestone and will provide confidence in system reliability and performance. Overall, this project, which is 67% complete, has exceeded its budget and has been significantly delayed due to slow contractor progress on base stations, pilot bus installations, and having a reliable BRS network. With respect to schedule, the IEC notes that the contractor's update, which has not been accepted by C&D, shows a May 2024 SC. C&D and the IEC both

contend that the contractor's installation of equipment on buses is driving the critical path, whereas the contractor attributes the delay to completion of the Kearny Base Station. According to the IEC, the project team is continuing to be aggressive and drive the contractor to a completion in December 2023, a 3-month delay since the last report. To complete the project on time, an average of 350 buses per month must be completed. Importantly, DOB has given assurance that sufficient buses will be provided to the project to preserve the latest project SC date of December 2023. And while the IEC recognizes that the contractor has yet to perform bus installation at this higher rate, this risk is somewhat offset by experience gained during the pilot stage, which could allow for a swift ramp-up of bus radio installation productivity. The project's EAC of \$330M exceeds the current budget by \$36M, and the IEC continues to forecast a higher EAC of \$350M due to the impact of delays, change orders, and risks. Ultimately, a budget modification will be needed to bring it into alignment with the EAC. The IEC completed its Project Review with the following observations: with 71 months elapsed since award, significant work remains, and the contractor is responding by adding network and systems engineers, and bus installation staff to its workforce. In addition, according to the IEC, technical issues are being addressed in a more disciplined fashion, and in-service testing of fully equipped buses has proven to be of use in identifying technical and operational issues, reducing the risk of failures during the pilot and potential delay to project completion.

Procurement Actions

Steve Plochochi, Senior Vice President ("SVP"), Contracts, MTA Construction & Development Company ("C&D") reported there were fifteen procurement actions were being brought to the Capital Program Committee. There are no non-competitive items, fourteen competitive items totaling \$240.3M and one ratification totaling \$1.6M. SVP Plochochi then highlighted two of the items and requested approval for all fifteen.

Board Member Albert inquired as to why C&D is buying additional R211 subway cars before the cars that were previously ordered are received and know how well they will perform. SVP Plochochi responded the item (No. 5 below) is not to order additional cars but the communication based train control ("CBTC") equipment for those additional cars.

Upon a motion duly made and seconded, the Capital Program Committee voted the following procurement actions be brought before the MTA Board and recommended their approval:

1. The award of a publicly advertised and competitively solicited contract (6378) to RailWorks Transit LLC for design-build services for the Long Island Rail Road Babylon Interlocking Signal System Project for the amount of \$58,134,000 and a duration of 1,442 calendar days.
2. The award of a publicly advertised and competitively solicited contract (C52072) to TAP Electrical Contracting for design-build services for closed-circuit television cameras at locations throughout the New York City Transit Subway System for the amount of \$50,277,000 and a duration of 609 calendar days.

3. The award of ten publicly advertised and competitively solicited all-agency indefinite quantity contracts to the five firms listed below for asbestos and lead disturbance management and air monitoring services for miscellaneous construction projects for the aggregate not-to-exceed amount of \$100,000,000 and a duration of thirty-six months.

<u>Firms</u>	<u>Contract Numbers</u>
Core Environmental Consultants	CM-1641 and CM-1645
Entech Engineering, P.C.	CM-1642 and CM-1646
EPM-HVA Joint Venture	CM-1643 and CM-1647
LiRo Engineers, Inc.	CM-1644 and CM-1648
STV Incorporated	CM-1705 and CM-1706

4. The award of a publicly advertised and competitively solicited contract (PS21002) to Atkins-HNTB JV for general engineering consultant services for New York City Transit communication based train control for the not-to-exceed amount of \$18,154,956 and a duration of twenty-four months.
5. The exercise of Option 1 to the R211 carborne equipment for communication based train technology on the Eighth Avenue Line contract (S-48013-2) with Thales Transport and Security, Inc. for the amount of \$23,325,902.
6. The ratification of a contract modification (No. 84) to the traction power systems package No. 4 for the East Side Access Project contract (CS084) with E-J Electric Installation Co. to furnish and install pilot protection systems between Traction Power Substation C08 and the adjacent mainline substations G02 and G03 for a total cost of \$1,579,432 and an extension of the contract substantial completion date of 144 calendar days (December 31, 2021, to May 24, 2022).

A copy of the Resolution and the Staff Summaries for the above items are filed with the records of the Capital Program Committee Meeting of this date.

Adjournment

Upon motion duly made and seconded, Chairman Lieber adjourned the March 28, 2022 meeting of the MTA Capital Program Committee at 1:39 PM.

Respectfully submitted,
 Michael Jew-Geralds
 Office of Construction Oversight



2022-2023 CPC Committee Work Plan

I. Recurring Agenda Items

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

II. Specific Agenda Items

May

Overall Capital Program

- Integrated Megaprojects

June

Overall Capital Program
Rolling Stock
OMNY
Security Projects
Quarterly Traffic Light Report

July

Overall Capital Program

- Stations

September

Overall Capital Program

- Railroads

Quarterly Traffic Light Report

October

Overall Capital Program

- Infrastructure

November

Overall Capital Program

- Signals and Train Control

Minority, Women and Disadvantaged Business Participation
Small Business Development Program

December

Overall Capital Program

- Integrated Megaprojects

OMNY

Security Projects

Quarterly Traffic Light Report

January

Overall Capital Program

- Stations

February

Overall Capital Program

- Railroads

March

Overall Capital Program

- B&T
- Infrastructure

Quarterly Traffic Light Report

April

Overall Capital Program

- Signals and Train Control

Minority, Women and Disadvantaged Business Participation

MTA Board & Capital Program Committee Update

Signals and Train Control Projects

April 2022

MTA Construction & Development’s (C&D) last report to the Capital Program Oversight Committee on Signals and Train Control Projects was in November 2021. This document summarizes the progress on some of the most significant projects, primarily Communication Based Train Control (CBTC) projects, and identifies the primary factors influencing the projects’ performance.

The most significant event since November 2021 is the completion of the cutover sequence on the Queens Boulevard Line-West Project (QBL-W). CBTC is now in full operation on the entire QBL-W line.

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 R179 vehicles and CBTC equipment to support the manufacturing of the R211 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	January 2025
Budget	\$735M	\$774M*	\$774M
The project is approximately 57% complete based on payments * Revised to include additional scope for Flushing signals removal and R211 option 1			

This project builds on the technology introduced in previous CBTC projects, notably the CBTC interoperability achieved on the QBL-W line, and (for the first time) introduced Axle Counters in lieu of Insulated Joints/Track Circuits to reduce life-cycle costs and maintenance. They also allow CBTC testing before the cutovers, reducing the cutover duration and associated risks.

The project is approximately 57% complete based on payments and is on schedule and on budget. The prime contractor (LK Comstock) continues to plan and perform well and is working diligently with the C&D project team to resolve project issues as they arise.

Current activities include:

- Rooms are being readied for equipment deliveries. Equipment deliveries are scheduled to begin in May 2022. Readiness includes racks, HVAC, Uninterruptible Power Supply (UPS), fire suppression, etc.
- Installation of wayside equipment continues, including radio equipment,

fiber optic cable and the messenger wire that the cable hangs on, axle counter heads, transponders and antennas

- Trackwork and switch replacement has started
- Data Communications System (DCS) - all equipment for 8 Av delivered
- R179 - CBTC equipment being installed on the vehicles per plan; vehicle testing and acceptance ongoing
- R211 - Integration testing on prototype car continues; CBTC equipment being installed on cars as they are being manufactured by Kawasaki

Factors that may affect future project performance:

- R211 vehicle production schedule revision impacts the 8 Av cutover and in-service schedule. The CBTC cutover sequence has been revised with NYCT Department of Subway's support to mitigate schedule impact. The R211 project will be presented during June 2022 CPC.
- The delivery of room equipment manufactured by Siemens is on the critical path for the interlocking in-services.
- There are some technical dependencies from the QBL-W CBTC project (i.e. Siemens DCS radio issues and Thales R160 in-service testing) that need to be resolved.

**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 R160 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 Rail Control Center (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 ATS for the B Division (ATS-B). Three separate contracts were awarded to deliver the project.

PROJECT STATUS	Original	Forecast
In Service CBTC	March 2021	Feb 2022 (Actual)
Budget	\$666.2M	\$729.2M
LK Comstock (Installer): 88% complete based on payments. (SC: July 2022) Siemens: 95% complete based on payments (SC: Dec. 2022) Thales: 88% complete based on payments (SC: June 2022)		

The project has already placed CBTC into service on all sections, with the last section having been placed into operation February 2022.

ATS-B is in-service. However, the completion of some features prevents the transfer of operation to ATS-B at the RCC.

310 of the 335 train units have been upgraded to run in CBTC mode. The team continues performance monitoring to assess fleet stability and maintainability which has not yet been fully achieved. Since the last report, multiple software upgrades have been installed and are being tested to improve reliability performance.

Automatic Train Operation is planned to be placed in service Q3 2022.

Further updates to software will also be necessary in 2022.

As reported in November 2021, overall project costs will exceed the budget primarily due to the (1) late award of the LK Comstock installer contract in 2017; (2) required coordination between other contracts; (3) late equipment; and (4) insufficient initial allocation of Force Account (FA) and Transit Authority Labor (TAL) funds. C&D will report on final cost projections once the effectiveness of the current software updates has been determined.

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 W 8 St and Church Ave in Brooklyn by modernizing signals, upgrading interlocking systems and equipment facilities, and making needed station improvements. 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 track work on the elevated structure.

Unlike the QBL line, 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	Aug 2022	May 2023
Budget	\$482M	\$482M
The project is approximately 78% complete based on payments		

Recent accomplishments:

- Signal cable pull/installation (98% complete, Avenue X Interlocking)
- Breakdown testing at Avenue X relay room completed

Ongoing activities:

- Field Testing at wayside Avenue X ongoing for a modernized interlocking in-service scheduled during Memorial Day weekend (pre-CBTC).
- Complete building subsystem testing

The special track work on the 100-year-old elevated structure has proven to be more challenging than expected. The project includes the use of special ties that have an extended life but require special processing. This processing was not properly planned, and some significant rework is needed.

C&D has worked with the NYCT Department of Subways to find solutions and mitigate the impact. Installation of Avenue X Special Work Portion (SWP) will be done *after* completion and delivery of associated division work required to place the Solid State Interlocking (SSI) and CBTC in service. Installation of new track at Ditmas SWP is required *before* the CBTC in-service date.

As a result, the project schedule is impacted. The delay will be further vetted once fabrication dates are confirmed for the Fiber-reinforced Foamed Urethane (FFU) ties.

ISIM-B Module3

W32789
W32801

The program is to provide the systems and subsystems to build out the new South Wall in the centralized RCC, which includes a Large-Scale Display and 41 QBL workstations. The project also includes health status indications for signal devices for the Maintenance of Way (MOW)/Signals Central Monitoring System. When completed, the program will provide the ability to perform preventive and corrective maintenance.

While the project remains on budget and schedule, it has been substantially descoped as some of the NYCT needs have changed significantly in the three years since the project was originally designed and contracted in 2018.

PROJECT STATUS	Original	Forecast
Substantial Completion	Dec 2022	Dec 2022
Budget	\$154M	\$154M
The project is approximately 66% complete based on payments.		

Some adjustments are being made:

- Cancellation of the Data Warehouse with the scope of work taken over as an internal initiative by MTA-IT
- Deletion of the Advanced Information Management (AIM) processor for information management to avoid duplication of similar command and control software
- Modification to a current Siemens contract to interface directly between the ATS-B and the Large Screen Display

The credit for contract scope reductions was negotiated with the Contractor in February 2022. It is still being processed and not reflected in the number above.

Notable activities include:

- Field indications are continuing with 23 of 37 locations completed
- The RCC wall has been removed. The Large Screen Display and the 41 new consoles are in place in the RCC ready for testing with ATS-B.

**Queens Blvd
Line East CBTC
(QBL-E)**

S48010
S48017
S87055

The project will provide CBTC systems from north of Union Turnpike to 179 St Station on the QBL (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 the following four (4) interlockings will be modernized:

- 179 St*
- 169 St*
- Parsons Blvd (Hillside Av)
- Briarwood

*169 St will become a separate interlocking (previously part of 179 St).

PROJECT STATUS	Forecast
Substantial Completion	Q2 2026
Budget	\$539.5M
EJ Electric (Installer): Awarded Dec. 2021 Mitsubishi (CBTC Supplier): Awarded Dec. 2021 Siemens (DCS): In-Negotiation	

Two separate contracts have been awarded to deliver the project: Installer and CBTC Supplier. The DCS is in negotiation.

At Union Turnpike Interlocking, full CBTC functionality shall be placed in service under this project (only the south end of Union Turnpike interlocking currently has CBTC functionality).

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

Since award, both Mitsubishi and EJ Electric have mobilized, advanced existing condition surveys, and are preparing detailed cutover plans and an integrated schedule.

April 2022 CPC Independent Engineering Consultant Project Review

Communications-Based Train Control (CBTC) Projects:

- ▣ 8th Avenue CBTC
- ▣ Queens Boulevard Line West CBTC
- ▣ Culver Line CBTC
- ▣ Queens Boulevard Line East CBTC

MTACD Signals & Train Control Business Unit



McKISACK

MTA Independent Engineering Consultant

April 2022 CPC Independent Engineering Consultant Project Review

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

MTACD Signals & Train Control Business Unit



MTA Independent Engineering Consultant

8th Ave CBTC

Scope

The project scope consists of supply and installation of a Communications-Based Train Control (CBTC) system on the 8th Ave 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).

This contract was awarded to LK Comstock (LKC) in January 2020, with an original duration of 60 months (to January 2025).

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

It includes the design, supply, and installation of an Axle Counter System (ACS) which will replace the traditional track circuits.

Also, the project is responsible for the supply and installation of carborne systems for the R179 and R211 subway cars and the Data Communications System (DCS) equipment.



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8th Ave CBTC

Schedule

- The project, which is 57% complete, was awarded in January 2020 with a contractual Substantial Completion (SC) date of January 2025 to deliver CBTC service to both the C&E Local and A Express service on the 8th Avenue Line.
- CBTC service on the A Line depends on the delivery of CBTC-equipped R211 cars procured under a different contract. Based upon contractor forecasts, the delivery of these cars will be delayed, likely impacting CBTC in-service on the A Line.
- The project team is analyzing the effect on schedule and the constraints on operational flexibility of an alternative cutover plan to deliver local CBTC service ahead of the express service.



MTA Independent Engineering Consultant

8th Ave CBTC

Budget Review

- ▣ The current project Budget and Estimate at Completion (EAC) are \$774M an increase of \$14M, from our last report. The increase to the budget is due to C&D exercising the option for Thales on board computer system for the R211 trains.
- ▣ Based on our review of project expenditures, contingency, reserve, soft costs, change orders, and risks, the IEC agrees with the project's forecast.



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8th Ave CBTC

Observation

- ▣ All required Siemens DCS equipment has been delivered to LKC, which mitigated the delay risk.

Concerns

- ▣ The manufacturing of the Axle Counter System (ACS) hardware is complete. The following elements of the implementation plan must be in place before revenue service begins:
 - ▣ Procedures for the manual resetting of an ACS block after a failure condition.
 - ▣ Operational procedures in the event of ACS failures at complex interlockings.
 - ▣ The Independent Safety Assessor is reviewing the safety case regarding the implementation of axle counters and will assist in the development of the NYCT rules and procedures.
- ▣ It is essential that radio signal-to-noise ratios be analyzed to avoid communications issues found on QBL West.



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8th Ave CBTC

Risks

- Unavailability of flagging protection and/or service diversion to support contractor crews at multiple locations could affect the resequencing plan.
- The Project Team, NYCT Operations Planning, and the contractor meet regularly to ensure the availability of NYCT services.



MTA Independent Engineering Consultant

April 2022 CPC Independent Engineering Consultant Project Review

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

MTACD Signals & Train Control Business Unit



MTA Independent Engineering Consultant

QBL West CBTC

Project Scope

The QBL Communications Based Train Control (CBTC) project will provide 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). Centralized Traffic Control is provided by an Automatic Train Supervision System (ATS) designed to monitor and control train service for the entire B-Division.

To implement the project, 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 and L.K. Comstock (LKC) was awarded Phase 2.

The project will also validate the Interoperability Interface Specifications (I2S) in revenue service operation.



MTA Independent Engineering Consultant

QBL West CBTC

Schedule

- The project achieved full CBTC operation in February 2022, on the entire QBL West line.
 - Although CBTC was fully deployed, system stability has not been achieved.
- Substantial Completion (SC) for the Thales Design and Furnish Contract is projected for June 2022, provided that technical issues are resolved.
- Substantial completion for the Siemens Design and Furnish Contract is projected for December 2022, upon achieving stability, achieving Automatic Train Operations (ATO) and providing all the Automatic Train Supervision (ATS) functions.
- The install contractor (LKC) is on-track to meet its contractual SC of July 2022 and the Project Team was able to mitigate the delay and reduce the number of GOs required.



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QBL West CBTC

Budget Review

- The total project Budget is \$666M (for the furnish and install contracts). The current project Estimate at Completion (EAC) remains at \$729M, a budget shortfall of \$63M.
 - A budget modification for \$63M, which has not changed since the last report, is still outstanding.
- The IEC has reviewed expenditures to date, cost of remaining work, change orders, and potential claims and believes that the budget, once modified, will be sufficient to complete the project at the current EAC.



MTA Independent Engineering Consultant

QBL West CBTC

Observations

- Since the last report to the Board, the remaining sections of the line have been placed in CBTC service.
 - This is a major achievement considering the challenges of multiple suppliers and complexity of the line.
- CBTC System Stability
 - System stability is measured by the frequency of incidents that cause service interruptions during revenue service.
 - Previously reported issues with the Thales Zone Controller (ZC) (in the Intermediate Section/Section 1) have been resolved. The ZC equipment has achieved stable operation.
 - Siemens continues to have issues with radio communications between trains and wayside.



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QBL West CBTC

Concerns

- Communications issues on Siemens-equipped trains have persisted and are causing an unacceptable level of daily incidents. Additionally, an effective plan to resolve all communications issues cannot be developed until all the root causes are identified.
 - Siemens plans to deploy new hardware, firmware, and software revisions in May 2022, to address the known causes.

- Thales' Onboard Computer Unit (OBCU) (two train sets) remains under test and has not been approved for passenger service.
 - This task is important to complete the validation of the Interoperability & Interface Specification (I2S) in revenue service.
 - This delay has not resulted in any operational impact.



MTA Independent Engineering Consultant

QBL West CBTC

Recommendation

- ▣ Based on radio test results, which found a significant level of radio interference and to ensure reliable radio communications, the respective contractors for all CBTC lines should be directed to perform an analysis of signal-to-noise on to establish a basis for reliable radio design, so as not to delay the completion of the projects.



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April 2022 CPC Independent Engineering Consultant Project Review

**Culver Communications Based Train Control
(CBTC) - Design, Furnish, & Install Program**

MTACD Signals & Train Control Business Unit



McKISACK

MTA Independent Engineering Consultant

Culver CBTC

Project Scope

The contract was awarded to Tutor Perini in February 2019, with a duration of 42 months (to August 2022), to provide the Culver Line from Church Ave. station to 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.



MTA Independent Engineering Consultant

Culver CBTC

Schedule

	Substantial Completion (SC)	Variance in SC
Baseline Schedule	August 2022	--
Last Report	June 2023	10 months
March 2022 Update	November 2023	15 months

- In our last report (November 2021), the project completion was delayed by 10 months due to late deliveries of cable and Data Communications System (DCS) equipment.
- During this reporting period, an inconsistency between the ties and track conditions at the Ditmas Interlocking has impacted the project schedule by an additional 5 months. This issue could have been avoided if proper procedures had been followed, including conducting appropriate surveys, before ordering the track materials.
- The latest plan reflects performing this remedial work after CBTC is in revenue service. Following a detailed design review, the project team is reversing the work sequence.
 - The project must now analyze the schedule impact of this action.
- In the IEC's opinion, SC may slip several more months, due to this resequencing and potential tie fabrication lead time.

Culver CBTC

Budget Review

- ▣ The project Budget and Estimate at Completion (EAC) is \$482M and remains the same since contract award.
 - ▣ The IEC finds, based on our review of the project delays and risks, the expenditures to date, remaining work, executed and potential change orders, contingencies and reserves, that the overall project budget is sufficient to complete the project as planned.



MTA Independent Engineering Consultant

Culver CBTC

Observations

- ▣ The Project is on-track to start CBTC testing and place the Avenue X Relay Room and interlocking in service in June 2022 before completion of special track work.

Risk

- ▣ Radio communication issues currently affecting the QBL West CBTC System may delay the Culver CBTC in-service date, if they are not resolved by June 2023.
 - ▣ This risk is being mitigated by the QBL West Project, as the contractor plans to deploy new radio hardware, firmware, and software.



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April 2022 CPC Independent Engineering Consultant Project Review

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

MTACD Signals & Train Control Business Unit



MTA Independent Engineering Consultant

QBL East CBTC

Project Scope

- This project includes 3 individual contracts; system integrator and furnish contract awarded to Mitsubishi, install contract awarded to E-J Electric, and a transponder and radio communication system contract to Siemens.
 - Note: This is Mitsubishi's first major CBTC project with MTA.
- 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 a Communication Based Train Control (CBTC) system. The new system will also include Solid State Interlocking (SSI) and Automatic Train Supervision (ATS). The CBTC system will be integrated with an Auxiliary Wayside Signal (AWS) installation that will provide signal protection during degraded modes of operation. Axle Counter System (ACS) will replace track circuits north of Union Turnpike 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.
 - Full CBTC service will be provided from Union Turnpike to 179th Street.
 - ATS, originally provided in the QBL West project, is extended in this project to control the entire QBL line.



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QBL East CBTC

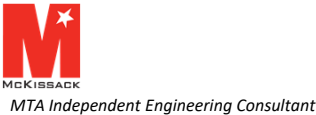
Schedule

- Both the Installer and CBTC Supplier contracts were awarded in December 2021 with CBTC in-service scheduled for May 2026.
 - E-J Electric and Mitsubishi have submitted draft baseline schedules, which will be merged into an Integrated Project Schedule (IPS) by E-J Electric.
 - Siemens will provide schedule input for its responsibilities to E-J Electric who will incorporate it into the IPS.
 - Mitsubishi has also provided a draft Cutover Plan, for consideration and integration into the IPS.

Budget

- At contract award, the Total Budget and Estimate at Completion (EAC) for the project are \$539.5M. The breakdown per contract is as follows:

Project Description	Contractor	Value
Installer	E-J Electric	\$440.5M
CBTC Supplier	Mitsubishi	\$98M



QBL East CBTC

Observations

- The QBL East CBTC program is Mitsubishi's first major CBTC project with MTA and represents a significant step in expanding MTA's vendor pool of CBTC suppliers based on the Interoperability and Interface Specifications (I2S).
- NYCT will supply Data Communication System (DCS) components, already in its possession, eliminating any DCS equipment supply risk to the schedule.
- Selection of a Project Management Consultant (PMC) is in the final procurement phase. The PMC is critical to effective management of the project.



MTA Independent Engineering Consultant

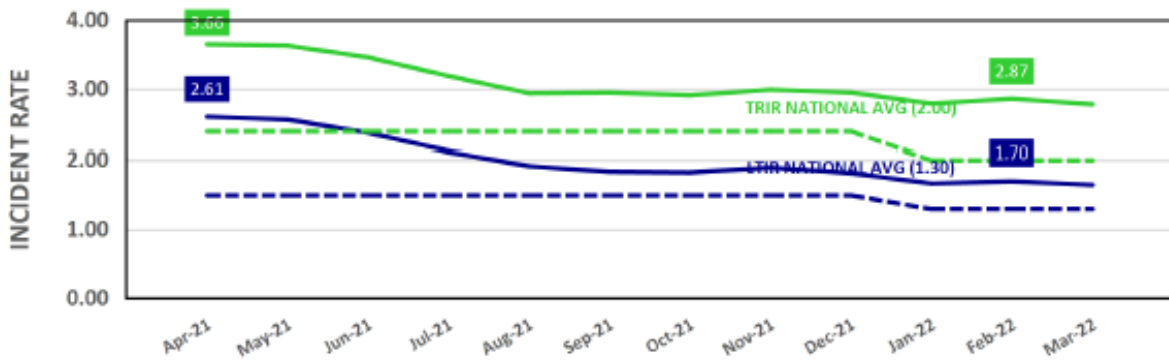
QBL East CBTC

Risks

- ▣ The top project risks and their mitigations include the following:
 - ▣ Although Mitsubishi has qualified its system on the Culver Test Track, it now must finalize its software development to interface with complex interlockings and to integrate with Siemens and Thales on-board equipment. The development effort may take longer than scheduled.
 - ▣ Identify development issues early, through audits or other means, and make timely corrective actions.
 - ▣ There are multiple prime contractors responsible for providing the CBTC System. Without effective technical and schedule coordination between three primary vendors, there could be impacts on schedule.
 - ▣ The Project Team has taken steps to define and align schedule constraints.
- ▣ MTA C&D is planning a post-bid risk assessment update in May 2022, the results of which will provide mitigation measures for remaining risks.

All MTACD

TOTAL RECORDABLE INCIDENT RATE (TRIR) & LOST TIME INCIDENT RATE (LTIR)



LTIR	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Rate Average
2021	2.70	2.70	2.58	2.61	2.57	2.38	2.12	1.92	1.84	1.83	1.90	1.82	2.25
2022	1.67	1.70	1.65										1.67

TRIR	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Rate Average
2021	3.72	3.68	3.59	3.66	3.64	3.47	3.20	2.95	2.96	2.92	3.00	2.96	3.31
2022	2.80	2.87	2.79										2.82

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2021	LaborHour	817,958	851,305	907,136	857,155	839,911	815,849	775,364	782,919	735,024	804,196	757,150	708,552	9,652,520
	LT	10	8	10	6	6	4	2	8	8	16	4	6	88
	TR	6	2	4	6	7	2	4	1	4	10	6	3	55
2022	LaborHour	609,151	598,286	668,706										1,876,144
	LT	1	7	6										14
	TR	4	3	1										8

SAFETY NARRATIVE

INCIDENTS (YTD) – Fourteen (14) Lost Time and Eight (8) Recordables

- The number of reported incidents resulting in Lost Time (LT) injuries YTD are 50% lower than the same reporting period of 2021 (14 / 28).
- The number of reported incidents resulting in Recordable (TR) injuries YTD are 33% lower than the same reporting period of 2021 (8 / 12).
- The calculated LT and TR Incidence Rates continue trending downward and are currently below the calculated rates over the same period last year (LT 36% lower and TR 22% lower).
- Slips, Trips, Falls continue to be the leading cause of LT incidents. These accounted for 57% (8 of 14) of the reported LT incidents in 2022.
- The breakdown for the trades involved in the LT's of 2022 are **Electrician** – 6 (43%); **Iron Worker & Laborer** – 3ea (21.5%); **Inspectors** – 2 (14%).

INVESTIGATIONS:

- **MNR - 2/14/2022** - Harmon Shop Phase V Stage 2 Project (Project #MN81933) – Laborer fell from scaffold while modifying the scaffold for concrete block installation. The worker fell approximately 16-feet resulting in a Lost Time injury. Root Cause determination is pending. Preliminary report has been submitted the initial findings include - Failure to review and document SWP/JHA with all employees; Failure to provide an interpreter for non-English speaking employees; Failure to ensure that all workers had the required scaffold training. Work was stopped for the entire site and was gradually returned in 3 Phases with the scaffold work being Phase 3 dependent after the full re-submittal and approval of Safe Work Plans for scaffold work and re-training of personnel.
- **B&T** – Two reported incidents involving Inspectors falling off ladders within a span of 2 days. Details for both incidents provided in the B&T Safety Summary
 - **TN 49 - 2/08/22** – Fall from height – Inspector, climbing a ladder, fell approx. 10 ft onto the work platform. The Inspector sustained a shoulder injury resulting in a Lost Time Injury.
 - **RK-PT - 2/10/22** – Fall from height – Inspector, climbing a ladder, fell approx. 10 ft from ladder onto ground resulting in an elbow injury requiring 3 stitches resulting in a Lost Time Injury.

- **Inf. - 3/11/22 – C-34855** – ENY Roof Replacement – Two (2) Contractor employees dropped aluminum coping on live tracks directly below resulting in power outage to ENY Yard and Shop. Improper SWP and controls in place resulted in 3-hour power outage. All operations stopped by PCEO until updated SWP compiled, reviewed and Safety Meetings held.
- **Inf. - 3/17/22 – C-34838** – 207th St Yard – During the Night Shift, a worker discovered a fire in a storage room in Tower A. FDNY responded and put fire out. Room has materials, refuse and other combustible storage. Cause unknown. Building has been released to continue work after Insurance Investigations.
- **B&T - RK 19/RK-70 - 3/31/22** – Laborer #1 was blasting when laborer #2 pulled blast hose causing nozzle to twist and release high speed blasting material striking laborer's #1 arm. Laborer #1 was hospitalized for 3 days and received deep wound laceration care to prevent infection from embedded abrasive particles. The investigation concluded unsafe act caused by lack of coordination within work crew and improper hose management practices. Contractor revised their safety plans, retrained project personnel, and issued additional PPE.

AUDITS: INTERNAL – 708 EXTERNAL – 1,178 including OCIP visits

- Overall Safety Hazards identified during project Safety Assessments include Housekeeping, Scaffolds & Aerial Lifts, Security & Public Protection, Barricades & Enclosures and Stairs & Ladders.
- Positive Safety Findings/Observations include Hand & Power Tools, PPE, General Safety, and Supervision/Organization.

TRENDS:

- Trending for all of C&D overall has improved for 2021 vs 2020.
- The top 3 trades with reported LTs in 2021 were Electrician, Laborer and Ironworker
- As a result of the increase of Reported Lost time accidents for February, overall Incident Rates may trend higher

ACTIONS:

- All Agencies, Business Units, and Integrated Projects continue working with PMTs to have contractors follow Safety Protocols. Whether it be Safety Rollbacks, Safety Standdowns, or meeting with specific contractors, Safety Management throughout the various C&D Business Units continues to emphasize to the PMT's the need for them to be active participants in ensuring the continued safety compliance and oversight of their respective projects
- B&T contracts had Three (3) Incidents in February, all including Ladders. B&T BU issued a Safety Alert "Fall from Ladder" to all field staff and contractors and held a "Ladder Safety" Stand Down for all B&T projects reviewing incidents, reinforcing safety practices and enhancements. Ladder Safety Advisories were issued to the other MTA CC&D BUs.
- B&T Business Unit sponsored the NYC DOB 4-hour Supported Scaffold User training to BU staff members. Contractors and CM Staff members participated in an American Ladder Institute Standdown
- As a result of the scaffold incident at the MNR Harmon Shop the PMC and OCIP increased Safety Oversight for that location.
- The AECOM Safety Assessment Initiative continues. The team continues to review of project safety deliverables with the project teams, Contractor, PMC and MTA C&D Project Management. This initiative began on January 7, 2022. To date, the team has met with the PMT's of 7 projects. Meetings with PMTs and Site visits for two projects are scheduled for the week of April 11. A total of 22 C&D projects have been identified for review under this initiative across the various BU's.

Metropolitan Transportation Authority Department of Diversity and Civil Rights

M/WBE, DBE, and SDVOB Participation on Capital Projects

April 25, 2022



MWDBE and SDVOB Participation on MTA Capital Projects with Goals*

■ Federal Participation Goal: 20%

(Federal Fiscal Year 2021 (October 2020 to September 2021))

- Total Awards: \$92M
- Total DBE Awards: \$21M (23%)
- Total Payments: \$467M
- Total DBE Payments: \$88M (19%)

■ New York State MBE Participation Goal: 15%

(First Three Quarters of NYS Fiscal Year 2021-2022 (April 2021 – December 2021))

- Total Awards: \$146M
- Total MBE Awards: \$23M (16%)
- Total Payments: \$1.8B
- Total MBE Payments: \$257M (14%)

■ New York State WBE Participation Goal: 15%

(First Three Quarters of NYS Fiscal Year 2021-2022 (April 2021 – December 2021))

- Total Awards: \$146M
- Total WBE Awards: \$14M (9%)
- Total Payments: \$1.8B
- Total WBE Payments: \$218M (12%)

■ Service Disabled Veteran-Owned Business Participation Goal: 6%

(First Three Quarters of NYS Fiscal Year 2021-2022 (April 2021 – December 2021))

- Total Awards: \$85M
- Total SDVOB Awards \$4M (4%)
- Total Payments: \$512M
- Total SDVOB Payments: \$7M (1%)

*Report is based on original contract amount provided by MTA Agencies for third-party design and construction contracts (excluding rolling stock and signals).

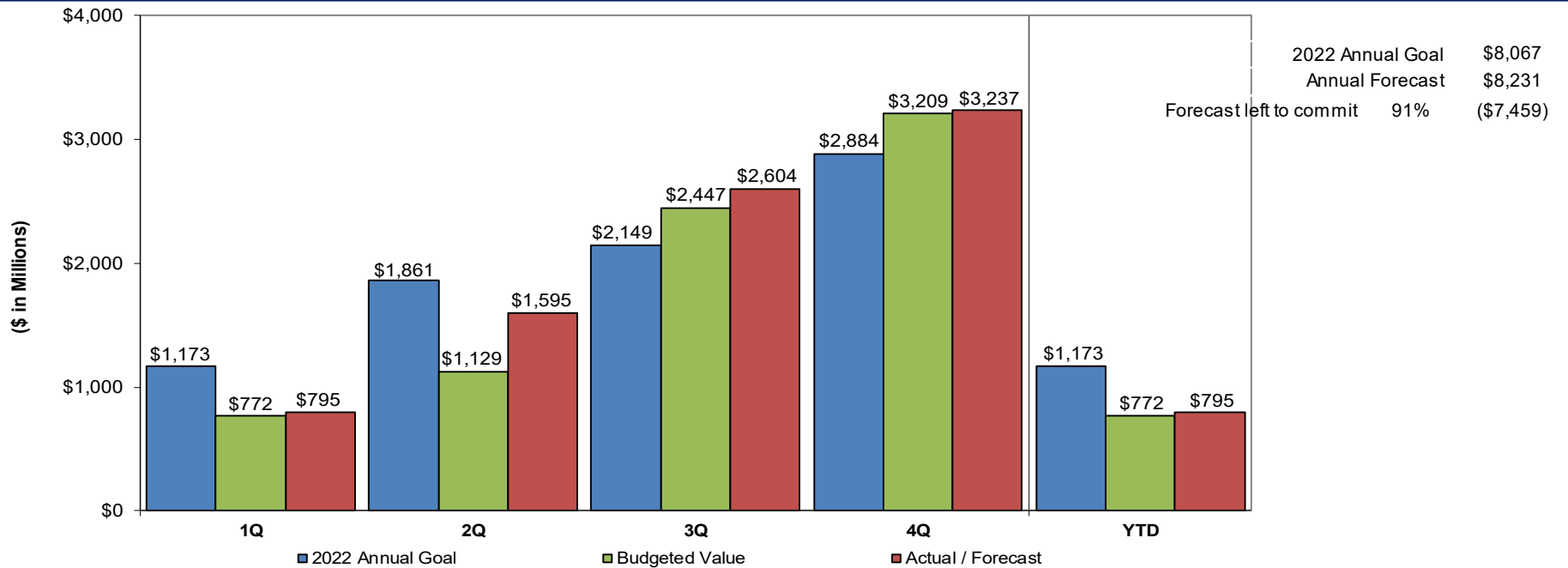


MTA Capital Program Commitments & Completions

**through
March 31, 2022**

Capital Projects – Commitments – March 2022

MTA-wide 2022 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.

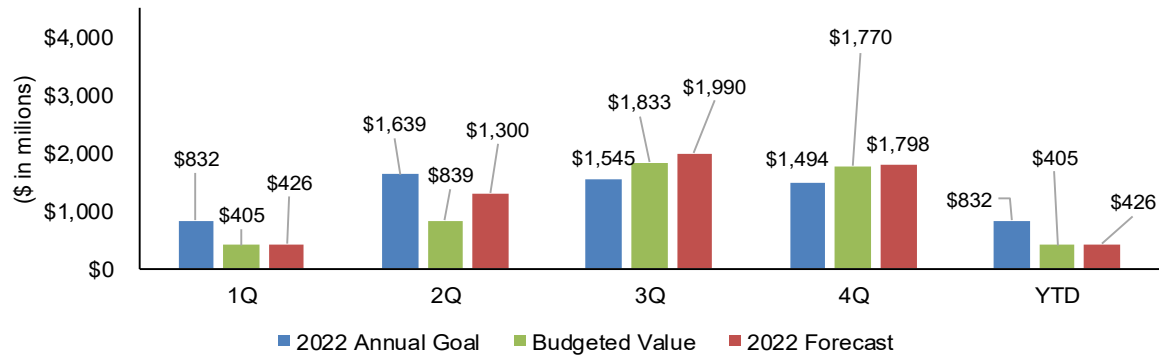
Commitments Summary

In 2022 the MTA plans to commit \$8.1 billion worth of capital projects. Through March, the MTA has committed \$795 million versus a \$1,173 million year-to-date goal. The shortfall is mostly due to the delayed awards of \$404 million of NYCT projects. By year end, the MTA forecasts meeting or exceeding its \$8.1 billion goal.

NYCT/MTA Bus Capital Projects – Commitments – March 2022 – Budget Analysis and Schedule Variances

NYCT and MTA Bus Budget Analysis

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2022 Annual Goal	\$832	\$1,639	\$1,545	\$1,494	\$832
2022 Forecast	\$426	\$1,300	\$1,990	\$1,798	\$426
Budgeted Value	\$405	\$839	\$1,833	\$1,770	\$405



Q1 Schedule Variances

Project	Commitment	Goal	Forecast
---------	------------	------	----------

2 NYCT/MTA Bus Amber Commitments (2 new this quarter)

Amber delays are within 2 months of goal.

Line Structures

E 180th St ROW Bundle / WPR, Dyre (New Item)	Construction	Mar-22	Apr-22
		\$ 175.0	\$ 174.9

The award date was delayed until April 2022 to address proposer concerns by removing negative rail work from the project scope as well as introducing B&T practices for structural painting into new specifications for use by NYCT.

Facilities

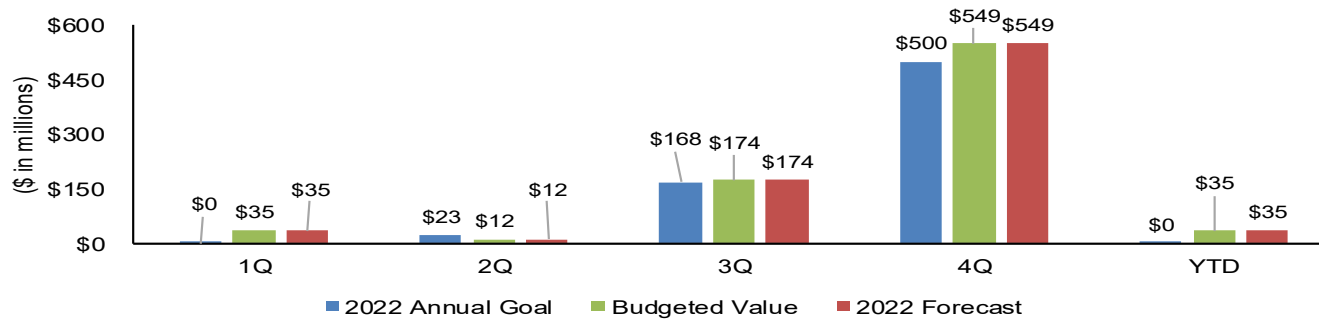
Tiffany Central Warehouse (New Item)	Construction	Feb-22	Mar-22 (A)
		\$ 58.4	\$ 58.4

The award was rescheduled due to additional time needed to respond to questions and comments received from the proposers, which required technical changes to the contract documents. The bid date was moved to December 2021.

LIRR Capital Projects – Commitments – March 2022 – Budget Analysis and Schedule Variances

LIRR Budget Analysis

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2022 Annual Goal	\$0	\$23	\$168	\$500	\$0
2022 Forecast	\$35	\$12	\$174	\$549	\$35
Budgeted Value	\$35	\$12	\$174	\$549	\$35



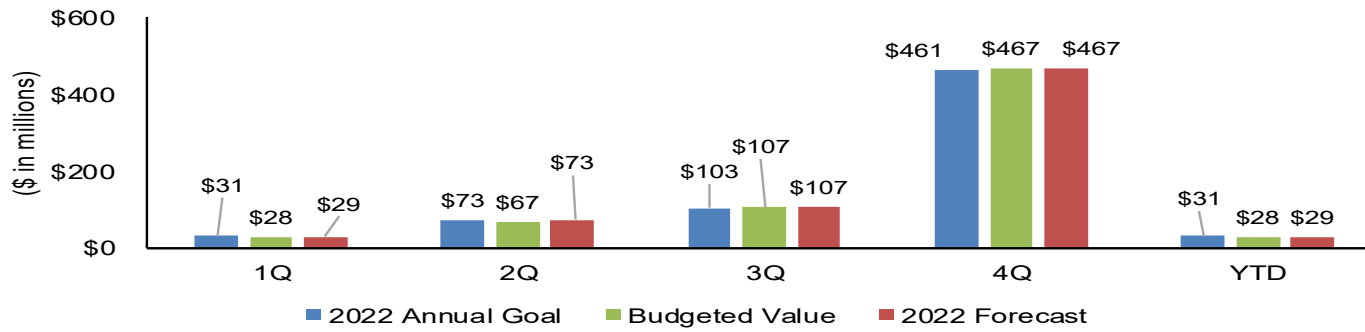
Q1 Schedule Variances

There are no major schedule slippages to report for the Long Island Rail Road.

MNR Capital Projects – Commitments – March 2022 – Budget Analysis and Schedule Variances

MNR Budget Analysis

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2022 Annual Goal	\$31	\$73	\$103	\$461	\$31
2022 Forecast	\$29	\$73	\$107	\$467	\$29
Budgeted Value	\$28	\$67	\$107	\$467	\$28



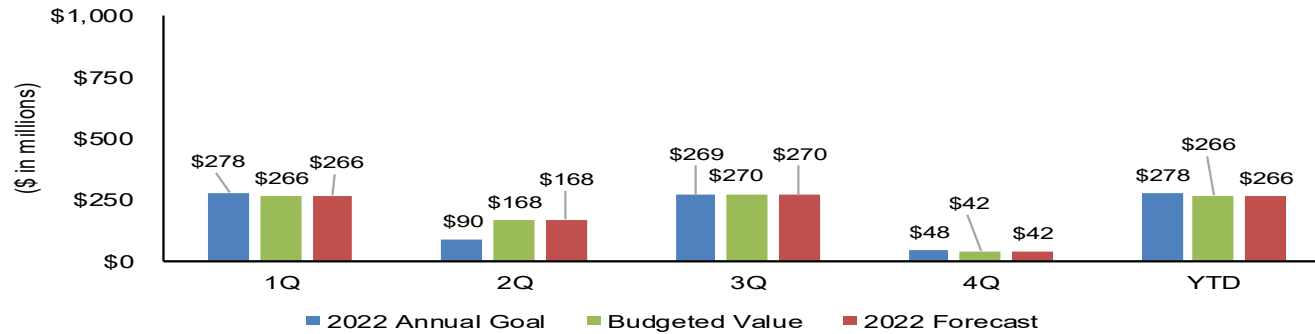
Q1 Schedule Variances

There are no major schedule slippages to report for Metro-North Railroad.

MTA Network Expansion Projects – Commitments – March 2022 – Budget Analysis and Schedule Variances

MTA Network Expansion Budget Analysis

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2022 Annual Goal	\$278	\$90	\$269	\$48	\$278
2022 Forecast	\$266	\$168	\$270	\$42	\$266
Budgeted Value	\$266	\$168	\$270	\$42	\$266



Q1 Schedule Variances

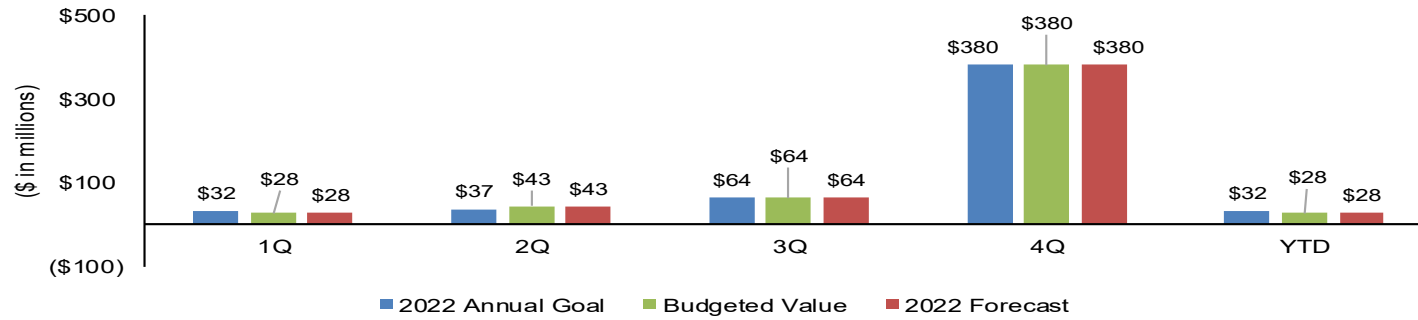
Project	Commitment	Goal	Actual
1 Network Expansion Amber Commitments (1 new this quarter)			
Amber delays are within 2 months of goal.			
<i>East Side Access</i>			
Interim Maintenance Contract (New Item)	Construction	Mar-22 \$32.6	Apr-22 \$32.6

The award was delayed due to additional time required for final contract negotiations.

B&T Capital Projects – Commitments – March 2022 – Budget Analysis and Schedule Variances

B&T Budget Analysis

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2022 Annual Goal	\$32	\$37	\$64	\$380	\$32
2022 Forecast	\$28	\$43	\$64	\$380	\$28
Budgeted Value	\$28	\$43	\$64	\$380	\$28



Q1 Schedule Variances

There are no major schedule slippages to report for MTA Bridges and Tunnels.

Capital Projects – Completions – March 2022

Goal	Actual	MTA-wide 2022 Major Completions												Post 2022
		Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	
Total	53	2	1	4	6	2	11	2	5	2	3	4	11	0
Jan-22	1	1												
Feb-22	2				1		1							
Mar-22	5			3	1				1					
Apr-22	6				4		1						1	
May-22	3			1		2								
Jun-22	11						9							2
Jul-22	3	1	1					1						
Aug-22	5								5					
Sep-22	2							1		1				
Oct-22	3										3			
Nov-22	4											4		
Dec-22	8												8	

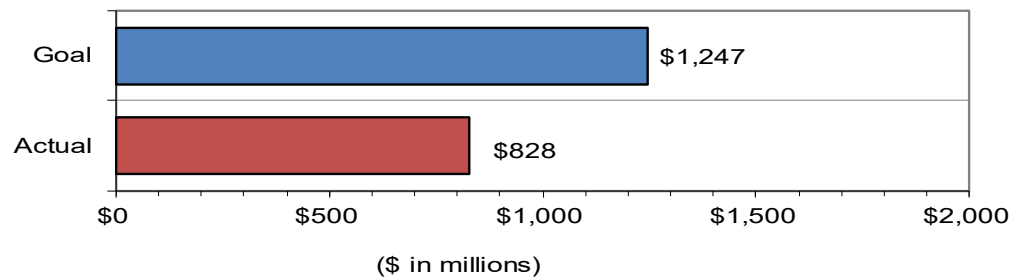
BLUE = Forecast/Actual earlier than Goal
GREEN = Forecast/actual matches Goal
AMBER = Forecast/actual within 2 months of Goal
RED = Forecast/actual beyond 2 months of Goal

Completions Summary

In 2022 the MTA plans to complete \$9.2 billion of projects. Through March, the MTA has completed \$828 million versus a \$1,247 million year-to-date goal. The shortfall is mostly due to the delayed completion of nearly \$400 million of NYCT projects, three of which are identified as “major” completion slips for the first quarter on the following page. These delayed completions are anticipated to be achieved later in the year. By year end, the MTA forecasts meeting its \$9.2 billion goal.

Budget Analysis

2022 Annual Goal \$9,234
 Annual Forecast \$9,229
 Forecast left to complete 91% (\$8,401)

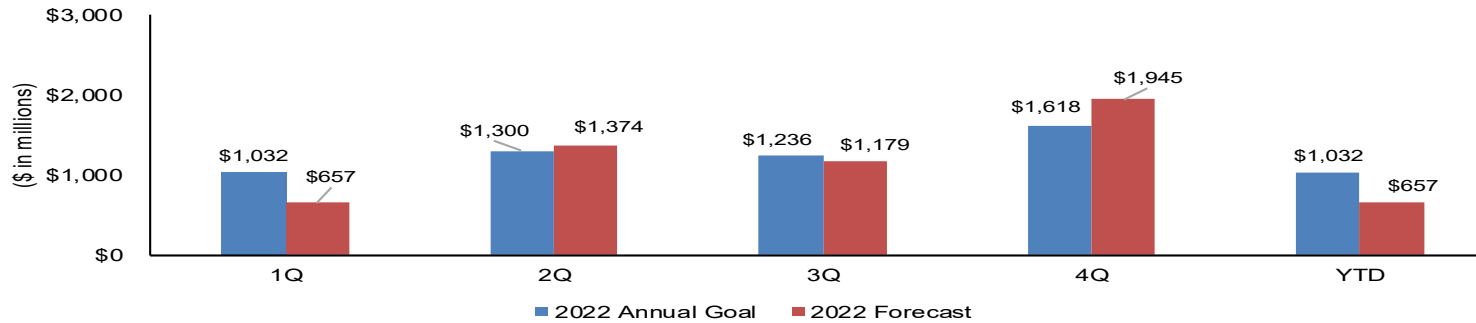


NYCT/MTA Bus Capital Projects – Completions – March 2022 – Budget Analysis and Schedule Variances

NYCT and MTA Bus Budget Analysis

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2022 Annual Goal	\$1,032	\$1,300	\$1,236	\$1,618	\$1,032
2022 Forecast	\$657	\$1,374	\$1,179	\$1,945	\$657

2022 Goal (Rolling Stock)	\$185	\$287	\$80	\$407	\$99
Forecast (Rolling Stock)	\$99	\$287	\$80	\$407	\$99



Schedule Variances

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

2 NYCT/MTA Bus Amber Completions

Amber delays are within 2 months of goal.

Power

New Substation: Harrison Pl / Canarsie	Construction	Feb-22	Apr-22
		\$ 51.3	\$ 51.3

The revised date reflects the delayed completion of equipment wiring and breaker energization.

Stations

ADA: Livonia Avenue / Canarsie	Construction	Mar-22	Apr-22
		\$ 84.3	\$ 84.3

The completion date reflects the additional time required to complete steel repairs and station painting.

3 NYCT/MTA Bus Red Completions (2 new this month)

Red delays are beyond 2 months of goal.

Power

Power Upgrade: RCC, PCC - Phase 2	Construction	Feb-22	Jun-22
		\$ 63.4	\$ 63.4

The revised date reflects the additional time needed to complete the equipment monitoring system.

New Substations at New Dorp and Clifton (New Item)	Construction	Apr-22	Dec-22
		\$ 50.4	\$ 50.4

The project completion has been delayed until December 2022 due to final cables connection and testing.

Signals

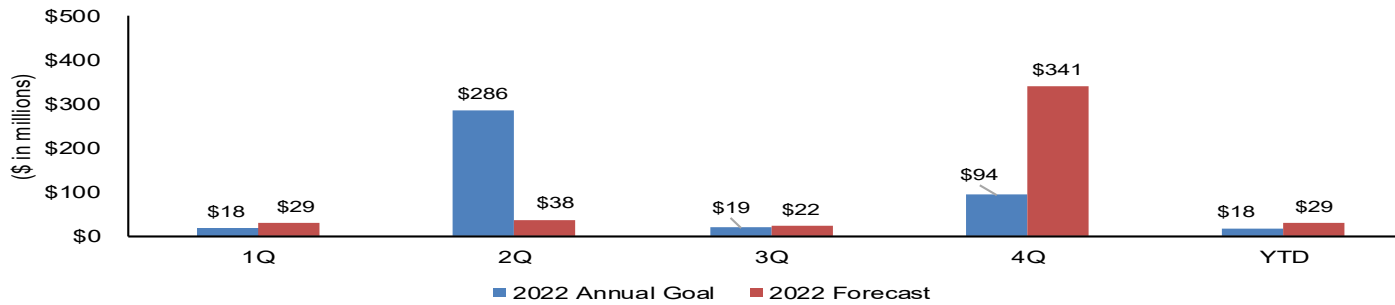
CBTC QBL West Ph.1 /Siemens (New Item)	Construction	Jun-22	Dec-22
		\$ 214.6	\$ 214.6

Substantial completion has been delayed due to carborne hardware/firmw are testing.

LIRR Capital Projects – Completions – March 2022 – Budget Analysis and Schedule Variances

LIRR Budget Analysis

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2022 Annual Goal	\$18	\$286	\$19	\$94	\$18
2022 Forecast	\$29	\$38	\$22	\$341	\$29
2022 Goal (Rolling Stock)	\$0	\$198	\$0	\$0	\$0
Forecast (Rolling Stock)	\$0	\$0	\$0	\$198	\$0



Schedule Variances

Project	Completion	Goal	Actual
1 LIRR Red Completion (1 new this month)			
Red delays are beyond 2 months of goal.			
<i>Rolling Stock</i>			
M9 Fleet Procurement (New Item)	Fleet Purchase	Jun-22	Dec-22
		\$197.8	\$197.8

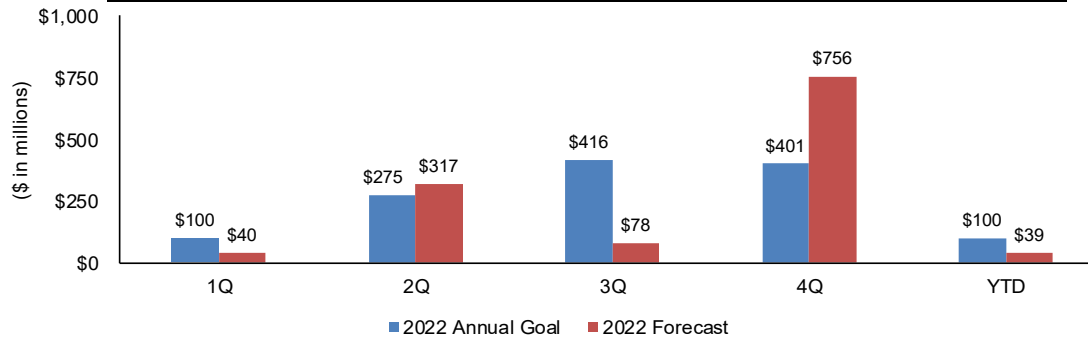
The slippage in the schedule is a result of Kawasaki correcting various workmanship issues prior to conditional acceptance by LIRR.

MNR Capital Projects – Completions – March 2022 – Budget Analysis and Schedule Variances

MNR Budget Analysis

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2022 Annual Goal	\$100	\$275	\$416	\$401	\$100
2022 Forecast	\$40	\$317	\$78	\$756	\$39

2022 Goal (Rolling Stock)	\$0	\$0	\$0	\$230	\$0
Forecast (Rolling Stock)	\$0	\$0	\$0	\$230	\$0



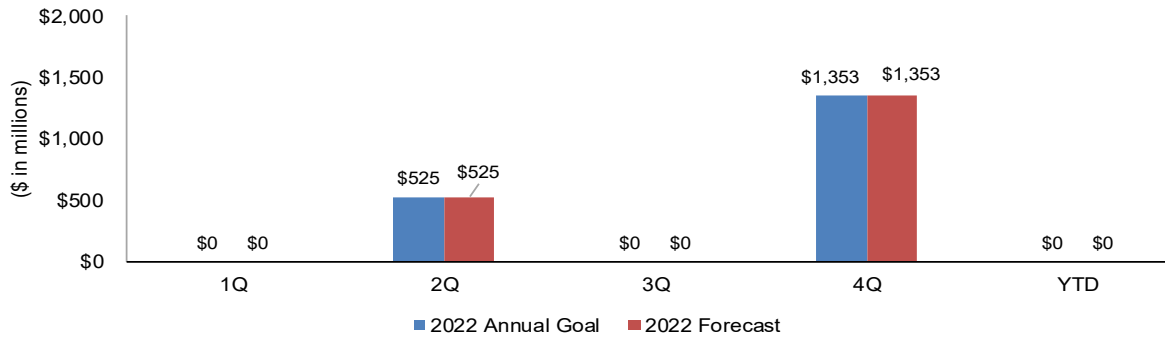
Schedule Variances

Project	Completion	Goal	Forecast	Project	Completion	Goal	Forecast
1 Metro-North Red Completion Red delays are beyond 2 months of goal. <i>Power</i>				1 Metro-North Amber Completion (1 new this month) Amber delays are within 2 months of goal. <i>Communications</i>			
86th / 110th Substations	Construction	Mar-22 \$30.3	Sep-22 \$30.3	Network Infrastructure Replacement (New Item)	Construction	Apr-22 \$44.4	Jun-22 \$44.4
This project is delayed due to completion of an asset study, completion of the removable panel air filter system, and equipment testing which has extended the overall project completion date to September 2022.				Before the Dense Wave Division Multiplexing (DWDM) equipment can be put online, the deficiencies identified by Mitsubishi (HVAC unit manufacturer) need to be rectified pushing this to a June 2022 completion.			

MTA Network Expansion Projects – Completions – March 2022 – Budget Analysis and Schedule Variances

MTA Network Expansion Budget Analysis

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2022 Annual Goal	\$0	\$525	\$0	\$1,353	\$0
2022 Forecast	\$0	\$525	\$0	\$1,353	\$0



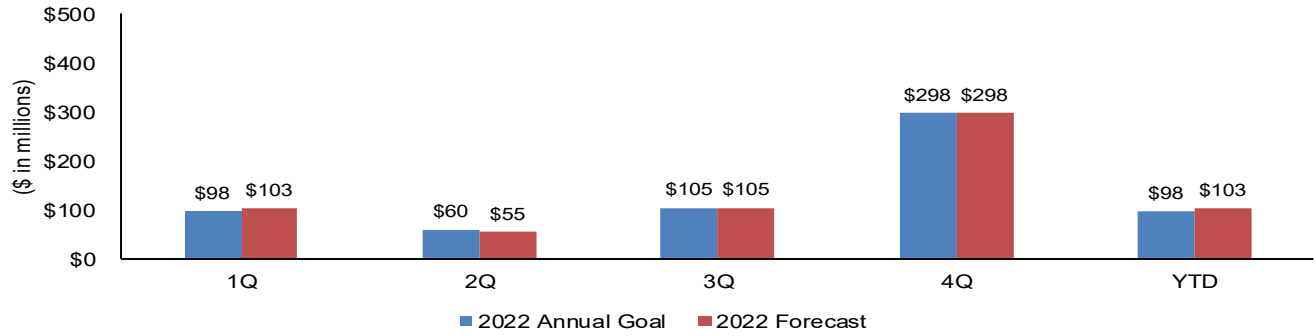
Schedule Variances

There are no major schedule slippages to report for Network Expansion.

B&T Capital Projects – Completions – March 2022 – Budget Analysis and Schedule Variances

B&T Budget Analysis

Summary Chart Data	1Q	2Q	3Q	4Q	YTD
2022 Annual Goal	\$98	\$60	\$105	\$298	\$98
2022 Forecast	\$103	\$55	\$105	\$298	\$103



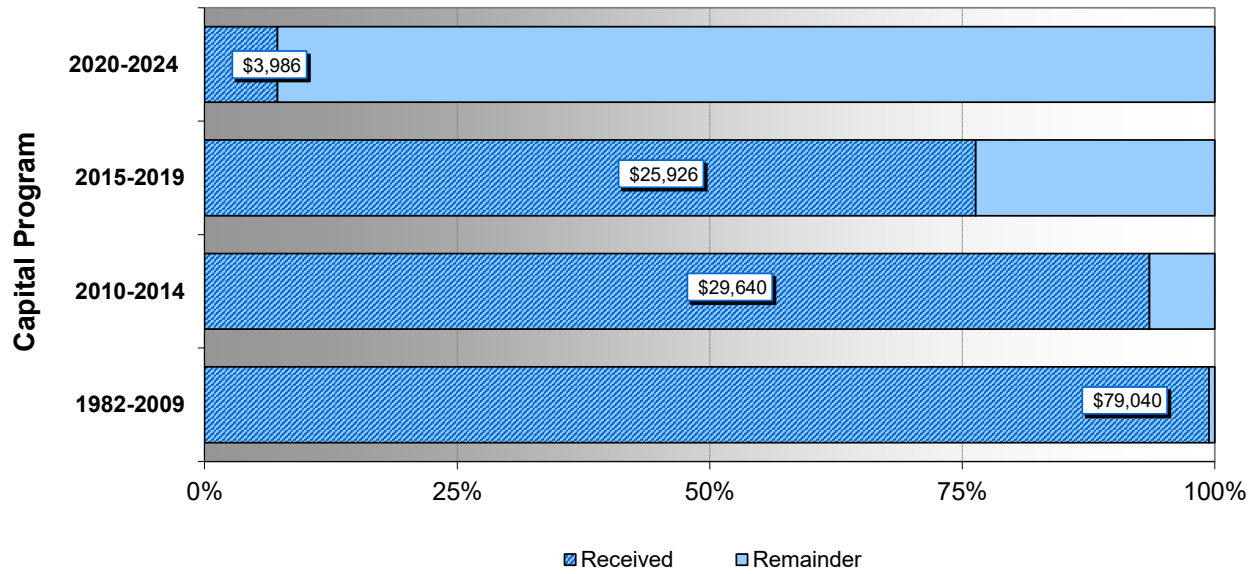
Schedule Variances

There are no major schedule slippages to report for MTA Bridges and Tunnels.

Status of MTA Capital Program Funding

Capital Funding (March 2022)

\$ in millions



Capital Funding Detail (March 2022)

\$ in millions

	Funding Plan		Receipts	
	Current	Thru February	This month	Received to date
2010-2014 Program				
Federal Formula, Flexible, Misc	\$5,862	\$5,857	\$ -	\$5,857
Federal High Speed Rail	173	173	-	173
Federal New Start	1,278	1,278	-	1,278
Federal Security	89	89	-	89
Federal RRIF Loan	-	-	-	-
City Capital Funds	719	608	-	608
State Assistance	770	770	-	770
MTA Bus Federal and City Match	132	113	-	113
MTA Bonds (Payroll Mobility Tax)	11,625	10,647	-	10,647
Other (Including Operating to Capital)**	1,270	1,124	-	1,124
B&T Bonds	2,022	1,864	-	1,864
Hurricane Sandy Recovery				
<i>Insurance Proceeds/Federal Reimbursement</i>	6,697	6,697	-	6,697
<i>PAYGO</i>	171	171	-	171
<i>Sandy Recovery MTA Bonds</i>	659	225	-	225
<i>Sandy Recovery B&T Bonds</i>	230	23	-	23
Total	31,696	29,640	-	29,640
2015-2019 Program				
Federal Formula, Flexible, Misc	\$6,681	\$5,528	\$ -	\$5,528
Federal High Speed Rail	\$122	\$122	-	\$122
Federal Core Capacity	100	-	-	-
Federal New Start	500	-	-	-
Federal Security	18	15	-	15
State Assistance	9,091	5,248	931	6,179
City Capital Funds	2,667	2,050	-	2,050
MTA Bonds	8,474	8,175	-	8,175
Asset Sales/Leases	943	315	-	315
Pay-as-you-go (PAYGO)**	2,156	1,572	-	1,572
Other	273	68	-	68
B&T Bonds & PAYGO/Asset Sale	2,942	1,902	-	1,902
Total	33,969	24,995	931	25,926
2020-2024 Program				
Capital from Central Business District Tolling	\$15,000	\$ -	\$ -	\$ -
Capital from New Revenue Sources	10,000	461	-	461
MTA Bonds and PAYGO	9,785	202	-	202
Other Contribution	520	-	-	-
Federal Formula	7,435	2,799	-	2,799
State of New York	3,000	-	-	-
City of New York	3,007	127	-	127
Federal New Start (SAS Ph2)	2,905	-	-	-
Federal Flexible	275	51	-	51
Federal Other	71	71	-	71
Federal Security	10	10	-	10
B&T Bonds	3,327	266	-	266
Total	55,334	3,986	-	3,986

Contracts Department

David Cannon, Vice President

PROCUREMENT PACKAGE April 2022



The above picture depicts cable inspection on the East River Suspension Bridge of the Robert F. Kennedy Bridge as part of a Biennial Inspection. This month's package includes items for the 2022 Biennial Inspections at the Robert F. Kennedy and the Verrazano-Narrows Bridges.

PROCUREMENTS

The Procurement Agenda this month includes five (5) actions for a proposed expenditure of \$62.4M.

Subject Request for Authorization to Award Various Procurement Actions					
Contract Department David K. Cannon, Vice President					
Board Action					
Order	To	Date	Approval	Info	Other
1	Capital Program Committee	4/25/22	X		
2	Board	4/27/22	X		

Date: April 15, 2022			
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 various procurement actions and, to inform the Capital Program Committee of these procurement actions.

Discussion

MTA Construction & Development proposes to award Competitive Procurements in the following categories:

<u>Schedules Requiring Two-Thirds Vote</u>	<u># of Actions</u>	<u>\$ Amount</u>
C. Competitive Requests for Proposals (Award of Purchase/Public Work Contracts)	1	\$ 51,600,000
SUBTOTAL	1	\$ 51,600,000
<u>Schedules Requiring Majority Vote</u>	<u># of Actions</u>	<u>\$ Amount</u>
F. Personal Services Contracts	4	\$ 10,766,407
SUBTOTAL	4	\$ 10,766,407
TOTAL	5	\$ 62,366,407

Budget Impact

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

Recommendation

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 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 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.

April 2022
LIST OF COMPETITIVE PROCUREMENTS FOR BOARD APPROVAL

Procurements Requiring Two-Thirds Vote:

**Schedule C. Competitive Requests for Proposals (Award of Purchase/Public Work Contracts)
 (Staff Summaries required for all items greater than \$1M)**

- | | | | |
|----|---|----------------------|--------------------------------------|
| 1. | JTTC JV
Contract No. C487731
818 Calendar Days | \$ 51,600,000 | <u>Staff Summary Attached</u> |
|----|---|----------------------|--------------------------------------|

MTA Construction and Development requests Board approval to award a publicly advertised and competitively solicited contract for design-build services for the repair of structural elements, construction of a new tunnel lighting room and accompanying tunnel lighting system and installation of fiber optic cables on the 8th Avenue Line.

Procurements Requiring Majority Vote:

**Schedule F. Personal Services Contracts
 (Staff Summaries required for all items greater than \$1M)**

- | | | | |
|------|---|---------------------|---|
| 2-5. | HNTB New York Engineering and
 Architecture, P.C.
Contract No. PSC-21-3049A
Two Years and Eight Months | \$ 3,373,633 | <u>Staff Summary Attached</u>

↓ |
| | AECOM USA, Inc.
Contract No. PSC-21-3049B
Two Years and Eight Months | \$ 2,555,601 | ↓ |
| | Stantec Consulting Services, Inc.
Contract No. PSC-21-3049C
Two Years and Eight Months | \$ 3,247,771 | ↓ |
| | WSP USA, Inc.
Contract No. PSC-21-3049D
Two Years and Eight Months | \$ 1,589,402 | ↓ |

MTA Construction and Development requests Board approval to award four (4) publicly advertised and competitively solicited personal service contracts for the 2022 Biennial Bridge Inspections at the Robert F. Kennedy and Verrazano-Narrows Bridges.

Dept & Dept Head Name: Stations/Barney Gray, Senior Vice President					
Contracts Department: Jessica Goldstein, Tower Lead					
Board Reviews					
Order	To	Date	Approval	Info	Other
1	Capital Program Committee	4/25/22	X		
2	Board	4/27/22	X		
Internal Approvals					
Order	Approval	Order	Approval		
X	Deputy Chief, Development	X	President		
X	Deputy Chief, Delivery	X	Executive VP & General Counsel		

SUMMARY INFORMATION	
Vendor Name JTTC JV	Contract Number C48731
Description Design-Build Services for Structural Improvements on the Eighth Ave Line	
Total Amount 1. C48731 Award: \$ 51,600,000 2. Stipend Payments: \$ 100,000	
Contract Term 818 Calendar Days	
Option(s) included in Total Amount? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Renewal? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Procurement Type <input checked="" type="checkbox"/> Competitive <input type="checkbox"/> Non-competitive	
Solicitation Type <input checked="" type="checkbox"/> RFP <input type="checkbox"/> Bid <input type="checkbox"/> Other:	
Funding Source <input type="checkbox"/> Operating <input checked="" type="checkbox"/> Capital <input checked="" type="checkbox"/> Federal <input checked="" type="checkbox"/> Other (FTA)	

Purpose/Recommendation

MTA Construction and Development (“C&D”) requests Board approval to award a publicly advertised and competitively solicited contract to JTTC JV (the “Design-Builder”), a joint venture consisting of J-Track, LLC and TC Electric, LLC, for design-build services for the repair of structural elements, construction of a new tunnel lighting room and accompanying tunnel lighting system and installation of fiber optic cables on the 8th Avenue Line in the amount of \$51,600,000 for a duration of 818 Days. In accordance with MTA policy regarding the use of design-build contracts, and to enhance competition and defray proposal costs, this solicitation included a stipend of \$50,000 be paid to each unsuccessful proposer whose proposal met the defined proposal standards. Accordingly, approval is also requested to pay stipends totaling \$100,000 to the two unsuccessful proposers.

Discussion

Contract C48731 (“the Contract”) is for repairs to structural defects along on the 8th Avenue Line on express and local tracks, including repairs to columns, beams, concrete, roofs, walls and ductbanks, as well as structural steel rehabilitation, and leak mitigation. The Design-Builder will also refurbish the existing tunnel lighting room that provides power to the lighting system on two tracks and will construct a new tunnel lighting room on the lower level of the 50th Street Station and install a new lighting system on two additional tracks within the 8th Avenue tunnel and run, install, and connect fiber optic cables at five locations along the 8th Avenue Line between communications rooms, fan plants, pump rooms and substations. The Design-Builder will need to coordinate with the communications-based train control (“CBTC”) work being performed on the 8th Avenue Line under adjacent contract S48006.

Procurement Process

A 2-Step procurement process was conducted for the Contract. In Step 1, a Request for Qualifications (“RFQ”) was advertised resulting in the submission of six (6) Statements of Qualification, which were evaluated against pre-established selection criteria addressing the organization and team members, relevant experience, past performance, diversity compliance, and understanding of the Project. The following four firms were selected to receive a Request for Proposal (“RFP”) in Step 2:

- El Sol Contracting / ES II Enterprises JV (“El Sol”)
- Forte Construction Corp. (“Forte”)
- JTTC JV
- Kiewit Infrastructure Co. (“Kiewit”)

In response to the RFP, El Sol, Forte and JTTC JV submitted technical and price proposals while Kiewit elected not to participate. The selection committee, consisting of representatives from C&D and New York City Transit, reviewed the technical proposals and heard oral presentations from each of the proposers. The selection committee then evaluated the technical proposals using pre-established selection criteria that assessed the proposers’ key personnel, overall project schedule, construction plan, design plan, management plan, safety and quality, prior experience and past performance, and diversity practices. The selection committee determined that all three teams submitted technical proposals that were responsive and acceptable.

The selection committee next opened the cost proposals which were as follows: El Sol: \$69,835,000; Forte: \$44,290,000; JTTC JV: \$52,458,850.

Based upon its review of the technical and cost proposals, the selection committee determined that the proposal submitted by JTTC JV demonstrated a technically superior approach to the design and construction work and full understanding of potential risks and detailed risk mitigation measures and included a reduction in both the number of diversions of service and the overall contract duration which provided significant cost savings to the MTA. While El Sol submitted a strong technical proposal, its cost proposal was significantly higher than JTTC JV and its proposal contained less of a schedule reduction. Forte’s technical proposal lacked project-specific detail and during their oral presentation its Project Manager and Design Manager did not demonstrate the same level of understanding of the Work as the other proposers. Additionally, the selection committee determined that the schedule proposed by Forte did not provide for the cost savings to the MTA that the JTTC proposal provided. For the reasons stated above, the selection committee unanimously recommended that only JTTC JV be invited in for negotiations.

Negotiations with JTTC JV included discussions of the design requirements, project schedule, the number of available diversions of service, and overall cost. Following negotiations, a Best and Final Offer (“BAFO”) was requested from JTTC JV which provided a BAFO in the amount of \$51,600,000.

The selection committee unanimously recommended JTTC JV for award of the contract and determined that its proposal offered the best value to C&D considering the strength of their technical proposal, understanding of the work, schedule reduction and the cost of their proposal. The contract includes incentives for early completion of the Contract, as well as liquidated damages for non-excusable delay in achieving the contract milestones. JTTC JV’s price is considered fair and reasonable.

DBE Information

The MTA Department of Diversity and Civil Rights (“DDCR”) has established a 22.5% Disadvantage Business Enterprise (“DBE”) goal for the Contract. Although this is a design-build contact with some undefined scope, JTTC JV is projecting to meet the required DBE goal. JTTC JV has not completed any MTA contracts with goals; therefore, no assessment of the firms DBE, Minority Owned Business Enterprise (“MBE”) or Woman Owned Business Enterprise (“WBE”) performance can be determined at this time. However, J-Track, LLC and TC Electric, LLC individually have achieved their assigned DBE/MBE/WBE goals on previous completed MTA contracts.

Impact on Funding

Funding for the design-build services for structural improvements on the Eighth Ave Line, and stipends for the two unsuccessful proposers are included in the New York City Transit portion of the MTA’s 2020-2024 Capital Program.

Alternatives

None recommended. Currently, MTA lacks available in-house technical personnel to perform the scope of work associated with this Contract.

Dept & Dept Head Name: B&T Business Unit/Joe Keane, PE, SVP and Chief Engineer					
Contracts Department: Brian A. Walsh, Acting VP & Chief Procurement Officer					
Board Reviews					
Order	To	Date	Approval	Info	Other
1	Capital Program Committee	4/25/22	X		
2	Board	4/27/22	X		
Internal Approvals					
Order	Approval	Order	Approval		
X	Deputy Chief, Development	X	President		
X	Deputy Chief, Delivery	X	Executive VP & General Counsel		

SUMMARY INFORMATION	
Vendor Name HNTB NY Eng. & Arch., P.C. AECOM USA, Inc. Stantec Consulting Services, Inc. WSP USA, Inc.	Contract Number PSC-21-3049A PSC-21-3049B PSC-21-3049C PSC-21-3049D
Description 2022 Biennial Bridge Inspection & Design of Miscellaneous Structural Repairs at the Robert F. Kennedy and Verrazzano-Narrows Bridges	
Total Amount (A) \$3,373,633 (B) \$2,555,601 (C) \$3,247,771 (D) \$1,589,402	
Contract Term Two (2) Years, Eight (8) Months	
Option(s) included in Total Amount? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Renewal? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Procurement Type <input checked="" type="checkbox"/> Competitive <input type="checkbox"/> Non-competitive	
Solicitation Type <input checked="" type="checkbox"/> RFP <input type="checkbox"/> Bid <input type="checkbox"/> Other:	
Funding Source <input checked="" type="checkbox"/> Operating <input type="checkbox"/> Capital <input type="checkbox"/> Federal <input type="checkbox"/> Other	

Purpose/Recommendation

MTA Construction & Development (“C&D”) requests Board approval to award four (4) personal service contracts (“the Contracts”) for the 2022 Biennial Bridge Inspections in the not-to-exceed (“NTE”) amounts to the following firms: (A) Robert F. Kennedy Bridge Main Line (Contract PSC-21-3049A) to HNTB New York Engineering and Architecture, P.C. (“HNTB”) in the NTE amount of \$3,373,633; (B) Robert F. Kennedy Bridge Harlem River Lift Span and Approach Ramps (Contract PSC-21-3049B) to AECOM USA, Inc. (“AECOM”) in the NTE amount of \$2,555,601; (C) Verrazzano-Narrows Bridge Main Line (Contract PSC-21-3049C) to Stantec Consulting Services, Inc. (“Stantec”) in the NTE amount of \$3,247,771; and (D) Verrazzano-Narrows Bridge Approach Ramps (Contract PSC-21-3049D) to WSP USA, Inc. (“WSP”) in the NTE amount of \$1,589,402. Each contract will be for a duration of two years, eight months through December 31, 2024.

Discussion

The scope of services for these biennial bridge inspection and miscellaneous engineering and design service contracts includes mandated biennial bridge inspections; underwater inspections; follow-up special inspections; miscellaneous related design and engineering services; and materials testing. The mandated biennial inspections assist in keeping bridge assets in a state of good repair as required by the New York State Department of Transportation (“NYSDOT”) and the Federal Highway Administration (FHWA). Consultant firms are awarded one contract in each biennial inspection cycle to ensure sufficient consultant resources are available to successfully complete the mandated inspections and NYSDOT reporting requirements in a timely manner.

Procurement Process

The requirements were publicly advertised, utilizing a competitive two (2) step Request for Proposal (“RFP”) process. All prospective proposers were requested to submit Statements of Qualification (“SOQ”) for all eligible contracts. Nine (9) firms submitted SOQs in response to the solicitation requirements and the following six (6) firms were chosen to receive the RFP based upon a review of those qualifications: AECOM; AI Engineers, Inc. (“AI”); HNTB; KB Group of NY, Inc. (“KB”); Stantec; and WSP. Each of those firms submitted proposals. The proposals were evaluated based on the established criteria set forth in the RFP as follows:

- Technical Work Proposed
- Depth of Understanding the Project
- Qualifications of the Firm for Specific Personnel Proposed
- Record of Diversity Practices
- Costs

Based upon the review of the proposals, the selection committee determined that the proposals submitted by the following firms are the most technically qualified and provided the MTA with the overall best value:

- HNTB for the Biennial Bridge Inspection for the Robert F. Kennedy Bridge Main Line
- AECOM for the Biennial Bridge Inspection for the Robert F. Kennedy Bridge Harlem River Lift Span & Approach Ramps
- Stantec for the Biennial Bridge Inspection for the Verrazano-Narrows Bridge Main Line
- WSP for the Biennial Bridge Inspection for the Verrazano-Narrows Bridge Approach Ramps

The selection committee’s recommendations were based on the following:

- HNTB’s proposal demonstrated a clear understanding of the biennial inspection processes. The proposed Project Manager has significant experience and the Inspection Team Leaders and Quality Control (“QC”) personnel are highly qualified.
- AECOM demonstrated extensive experience and knowledge of the biennial inspection work required and affirmatively responded to all related field conditions. AECOM has an experienced and knowledgeable Project Manager, QC Engineer and Team Leaders.
- Stantec’s proposed Project Manager, Quality Assurance/Quality Control (“QA/QC”) Officer, Safety Officer and Inspection Teams have been working together for many years and have the necessary experience to perform the work. In addition, Stantec also displayed rope climbing access inspection competencies to complement their more standard, mechanically enabled access techniques.
- WSP possesses experienced, knowledgeable and committed inspection teams that have been working together for several years. Additionally, the Project Manager, Team Leaders and Engineers have demonstrated significant experience in bridge inspection and engineering, with a strong commitment to safety.
- KB and AI were technically qualified, however, KB and AI proposed hours and costs which were consistently above the estimates, indicating a lack of complete understanding of the inspection scopes. Both firms were ranked lower as compared to the selected firms in the over-all group scoring.

Negotiations were held with all four (4) firms and addressed levels of effort in terms of hours, direct labor and overhead rates and, out-of-pocket expenses. Negotiations resulted in the following agreed to NTE amounts: HNTB - \$3,373,633 for the Robert F. Kennedy Bridge Main Line; AECOM - \$2,555,601 for the Robert F. Kennedy Bridge Harlem River Lift Span and Approach Ramps; Stantec - \$3,247,771 for the Verrazano-Narrows Bridge Main Line; and WSP - \$1,589,402 for the Verrazano-Narrows Bridge Approach Ramps which are all deemed to be fair and reasonable.

In connection with a previous contract awarded to AECOM, AECOM was found to be responsible notwithstanding significant adverse information (“SAI”) pursuant to the All-Agency Responsibility Guidelines and such responsibility finding was approved by the MTA Chair/CEO in consultation with the MTA General Counsel in February 2021. No new SAI has been found relating to AECOM and AECOM has been found responsible. A Contractor Compliance Program with AECOM and the MTA is currently in place.

In connection with a previous contract awarded to the Louis Berger Group, Inc. (“LBG”)¹, LBG was found to be responsible notwithstanding SAI pursuant to the All-Agency Responsibility Guidelines and such responsibility finding was approved by the MTA Chairman and Chief Executive Officer in consultation with the MTA General Counsel in November 2015. No new SAI has been found relating to LBG or WSP. WSP has no SAI except that stemming from its acquisition of LBG. WSP has been found responsible.

¹ LBG was acquired by WSP in December 2018 and that acquisition carries with it LBG's SAI.

D/M/WBE/SDVOB Information

The MTA Department of Diversity and Civil Rights has established a Minority Owned Business Enterprise (“MBE”) goal of 15%, a Women Owned Business Enterprise (“WBE”) goal of 15%, and a Service-Disabled Veteran-Owned Business (“SDVOB”) goal of 6% for these contracts. DDCR has determined that all four (4) firms’ utilization plans meet the MBE/WBE/SDVOB requirements established for these contracts. HNTB, AECOM, Stantec and WSP have each achieved their Disadvantage Business Enterprise and MBE/WBE goals on previous MTA contracts.

Impact on Funding

Funding is available in the Operating Budget.

Alternatives

That C&D self-perform the services to be provided under the Contract. This is not recommended as C&D lacks the in-house resources to provide the required services