

PMOC COMPREHENSIVE MONITORING REPORT

August 2025

Second Avenue Subway Phase 2 Metropolitan Transportation Authority/New York City Transit New York, NY

Federal Transit Administration
Region 2

Draft Report Delivered to FTA on September 17, 2025
Final Report delivered to FTA on *September 25, 2025*

PMOC Contract Number: 69319524D000007
Task Order Number: 69319525F30049N
OPs Referenced: 01, 02, and 25

David Evans and Associates Inc.
17 State Street, Suite 720, New York, NY 10004
Ashwini Sehgal, PMOC Task Order Manager
ashwini.sehgal@deainc.com
Time on Project: April 2025 - February 2030

TABLE OF CONTENTS

1.0	EXECUTIVE SUMMARY	ii
1.1	Project Description.....	1
1.2	Status of Scope, Schedule, and Budget.....	1
1.3	Major Issues and/or Concerns.....	5
1.4	Key Indicators Dashboard.....	6
1.5	Core Accountability Information.....	7
2.0	BODY OF REPORT	8
2.1	Summary of Monitoring Activities	8
2.2	Project Management Plan and Sub-Plans	8
2.3	Project Management Capacity and Capability (MCC)	9
2.4	National Environmental Policy Act and Environmental Mitigation.....	11
2.5	Project Delivery Method and Procurement.....	12
2.6	Design	14
2.7	Value Engineering and Constructability Reviews	14
2.8	Real Estate Acquisition.....	15
2.9	Third-Party Agreements.....	17
2.10	Construction.....	20
2.11	Vehicle Technology and Procurement.....	21
2.12	Project Cost.....	21
2.13	Project Schedule.....	24
2.14	Project Risk.....	26
2.15	Quality Assurance/Quality Control.....	28
2.16	Safety and Security	28
2.17	Americans with Disabilities Act	29
2.18	Buy America	29
2.19	Before and After Study Reporting	29
2.20	Lessons Learned.....	30
2.21	Action Items.....	30
3.0	ATTACHMENTS	31
	Attachment A: Abbreviations and Acronyms.....	31
	Attachment B: PMOC Shared Lessons Learned.....	32
	Attachment C: Top 10 Project Risks	33
	Attachment D: Awarded Contracts (as of May 1, 2025)	34
	Attachment E: Project Milestones/Key Events.....	35
	Attachment F: Project Maps	36

TABLE OF TABLES

Table 1 - Second Avenue Subway Contract C1-26201 Key Milestones	3
Table 2 – IPS Project Schedule RSDs and Contingency	4
Table 3 – Current Major Issues and Concerns.....	5
Table 4 – Key Indicators Dashboard	6
Table 5 – Core Accountability Items	7
Table 6 – Federal Grant Information	7
Table 7 – PMP and Sub-plans.....	8
Table 8 – SAS-2 Program Full Fee, Permanent, and Temporary Easements	15
Table 9 – Property Acquisitions	16
Table 10 – Property Relocations.....	16
Table 11 – SAS Phase 2 Funding Sources.....	21
Table 12 – SAS Phase 2 Budget and Expenditure Summary by SCC.....	22
Table 13 – Construction Cost by Contract.....	22
Table 14 – Actual Versus Estimated Construction Cost by Contract.....	22
Table 15 – FFGA Schedule Milestones	24

TABLE OF FIGURES

Figure 1 – Project Aerial View, Manhattan, New York, Second Avenue between 106 th and 125 th Streets.....	36
Figure 2 – Project Map Overall Work Scope.....	37

1.0 EXECUTIVE SUMMARY

1.1 Project Description

The Second Avenue Subway (SAS) Phase 2 project will extend the Second Avenue subway service, or Q Line, approximately 1.76 miles from the existing 96th Street Station to 125th Street and Park Avenue. It will include the construction of three new stations: 106th Street and Second Avenue, 116th Street and Second Avenue, and 125th Street and Lexington Avenue. The project will incorporate two tunnel segments that were constructed beneath Second Avenue, one between 99th Street and 105th Street and the other between 110th Street and 120th Street in the 1970s. Cut and cover construction methods will be used to connect the two existing tunnel segments under Second Avenue. Tunnel Boring Machines (TBMs) will be used to construct two tunnels between 120th Street and Second Avenue and the proposed 125th Street/Lexington Avenue Station. The TBMs will also complete the planned tail tracks to the west of Park Avenue.

1.2 Status of Scope, Schedule, and Budget

The SAS Phase 2 project is in the Construction phase, with the Full Funding Grant Agreement (FFGA) executed on November 4, 2023. Most of the project activities, including Contract 1 construction activities, were put on temporary hold by the Metropolitan Transportation Authority (MTA) on June 5, 2024, due to local funding issues related to New York City (NYC) Congestion Pricing not being implemented. On July 30, 2024, MTA notified the Federal Transit Administration (FTA) that it had fully mobilized Contract 1 and lifted the temporary hold on Contract 1 construction activities. MTA still maintained a temporary hold on many other activities such as major procurements, until the end of November 2024, when NYC Congestion Pricing was reimplemented. MTA has now fully resumed SAS Phase 2 project activities. *MTA has executed the Project Management Consultant services (PMC) contract with AECOM – HNTB JV and awarded MOD 29 to Phase 2 Partnership (P2P), a joint venture of WSP and STV in April 2025.. MTA continues significant construction activities on the active construction Contract 1 (Early Utility Relocations) and released the second major construction contract Request for Qualifications (RFQ) on July 11, 2025 and forecasted to issue draft RFP in fourth quarter of 2025, for Contract 3. MTA has awarded first major Design-Build Construction Contract 2 on August 29, 2025, and Notice to proceed is anticipated to be issued on September 2, 2025. Contract 4 is progressing towards 60 percent design.*

1.2.1 Project Scope and Status

The project will be delivered using three major contract packages and one early works package as follows:

Contract 1 – Early Utility Relocation: This contract package will provide building protection and early utility relocations at the 106th Street Station using a Design-Bid-Build procurement method. The Notice to Proceed (NTP) for this contract was January 2, 2024. MTA is working on obtaining third-party agreements, preconstruction surveys, and permitting for this contract. MTA is approximately 86 percent complete with these agreements; the remaining 9 are being handled by outside legal counsel and are being pursued through a court process. (b)(4)

However, MTA and the contractor have incorporated revised phasing and other

schedule efficiencies to help alleviate further delays. *The revised July and August 2025 monthly schedule updates with recovery plan are pending submission by the contractor.*

Contract 2 – 116th and 125th Street Stations and Tunneling: This contract will provide the 125th Street Station, bellmouth, and TBM launch box. It will include all TBM tunneling and cavern excavation for the 125th Street Station. This contract will also include construction of 116th Street Station. The contract will be a Design-Build procurement. b(4)

MTA released the RFP to the two respondents at the end of December 2024 and asked for proposals by May 5, 2025. The RFP was modified to provide a technical submittal on June 23, 2025, and a commercial submittal on July 16th, 2025. *On August 18, 2025, a special MTA Board session approved the procurement package for Contract 2. The contract was awarded on August 29, 2025, to Connect Plus Partners (CPP)—a joint venture between Halmar International LLC (“Halmar”) and FCC Construction Inc. (“FCC”)—for \$1,971,968,227. The award amount is 23 percent higher than the FFGA estimate of \$1,604,258,077 and 25 percent higher than the MTA’s revised estimate of \$1,576,010,905 submitted to the FTA in March 2025. The contract has a duration of 48 months, with Notice to Proceed anticipated on September 2, 2025.*

Contract 3 – 106th Street Station and Existing Tunnel Rehabilitation: This contract package will provide the cut-and-cover construction for the 106th Street Station and a portion of the retrofit of the existing tunnel. The contract will be a Design-Build procurement. The RFQ for Contract 3 was released on July 11, 2025. According to the latest schedule, the draft RFP was planned to be released on August 29, 2025, and is now anticipated to be released at the end of September 2025. The NTP for Package C3 is expected to be awarded by March 12, 2026.

Contract 4 – Station Finishes, Ancillary Buildings, Systems and Trackwork: This contract package will provide all station finishes and fit-out, tunnel fit-out, station entrances, ancillary buildings, and testing and commissioning. The Design Consultant, Phase 2 Partnership (P2P), is progressing with the development of project specifications, final design, and contract documents for C4 procurement since Contract Modification #29 to their existing contract was executed on April 17, 2025. *The final design is 40% complete and is progressing towards 60 percent design.*

1.2.2 Project Schedule and Status

- *The IPS schedule updates for May through July 2025 were not submitted. The MTA is expected to provide the July update in September 2025, incorporating both the Contract 1 recovery plan and the Contract 2 contractor’s baseline schedule.* MTA submitted an updated IPS on July 22, 2025 (without a schedule narrative), with a data date of May 1, 2025. This update maintains the Revenue Service Date (RSD) of November 7, 2031. The Project Management Oversight Contractor (PMOC) has reviewed the IPS schedule and has the following comments:
 - The IPS does not include a detailed schedule for the Final Design Phase for Contract 4.
 - The IPS shows a RSD date of September 10, 2032, including contingency whereas the FFGA RSD date is September 30, 2032.
 - The PMOC recommends the overall structural integrity of the schedule be improved. There are 350 activities with total float of more than 200 days and 180 activities with original duration greater than 100 days. There are 266 activities with lag relationships.

- Multiple critical paths currently impact the RSD and that may shift if the critical dates are missed—for example: the procurement phase of Contract C-26202 with a forecasted NTP of August 15, 2025 and zero day of float, Milestone #3 for the [REDACTED] availability of temporary power for the TBMs with three days of float.
- A significant number of activities near the data date are not progressing as planned. This may result in delays due to task stacking and resource constraints.
- b(4) [REDACTED] While this has increased schedule float, it has also raised the risk associated with those activities. Although MTA reports that Contract 2 bidders have reviewed the proposed construction duration without major concerns, many of the compressed activities fall under Contract 4.
- The PMOC recommends that MTA should incorporate the C2 contractor's schedule into IPS after the award of NTP for contract C2.

b(4)

- The PMOC recommends that PMC Project Controls perform an audit of the schedule updates, listing changes and explaining the basis for the change and any impact those changes have on the schedule.
- MTA has forecasted a SC date of October 25, 2027, for contract C1 in May 2025 IPS, whereas the contractor's forecast in update #11 (July 1, 2025, data date) is May 11, 2028 (variance of -6.5 months).
- The Critical Path Method (CPM) Update #11 (July 1, 2025, data date) for Contract C1-26201: Second Avenue Subway – Route 132A – Utility Relocation and Building Remediation shows significant delays to the following key milestones as shown in Table 1.

Table 1 - Second Avenue Subway Contract C1-26201 Key Milestones

b(4)	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

b(4)



The previous IPS schedule update was provided by MTA on March 24, 2025, with a data date of February 3, 2025. The schedule contingency was maintained in the February 3, 2025, schedule update, despite delays, by additional increased construction productivity rates and various logic changes. The RSDs and schedule contingency of the schedule updates are reflected in Table 2.

For the current IPS update, when using FTA guidance (OP-40) of 25 percent contingency of the remaining duration of the critical path of the Stripped and Adjusted Base Schedule, the recommended RSD would be June 24, 2033. The IPS revised baseline (May 1, 2025, update) has a deficiency of 9 months in schedule contingency if measured against the recommended RSD date.

Table 2 – IPS Project Schedule RSDs and Contingency

b(4)				

1.2.3 Project Budget and Status

MTA submitted a cost estimate on July 26, 2022. The Year of Expenditure (YOE) budget for the project at that time was estimated to be \$6.589 billion excluding finance charges.

The FTA recommends that a project utilize a confidence level of at least 65 percent (P65) of achieving the project budget. Based upon this criterion, the PMOC determined that a project budget of \$6.968 billion in YOE (excluding finance charges) reflected the risks and project progress as of September 2022. MTA provided an updated Standard Cost Category (SCC) workbook on December 22, 2022, that reflects a new total project budget based upon the PMOC Risk Assessment Refresh. b(4)

At the request of the PMOC, MTA last submitted an Estimate at Completion (EAC) on September 3, 2024. This EAC remained at \$6.968 billion (excluding finance charges); however, it did not include updated pricing. For example, construction cost estimates for Contracts 2, 3, and 4 were left unchanged despite approximately one and a half years of delays. Since this time, MTA submitted updated cost estimates for the majority of direct construction costs (Contracts 2, 3, and 4 on March 16, April 1, and April 30, 2025, respectively). The PMOC recommends that a complete updated EAC be finalized because it is also needed to establish remaining contingency.

The PMOC has reviewed the impact of the one and a half-year delay on the overall EAC and finds that, primarily due to price escalation, project costs could increase by as much as b(4). This additional cost would reduce the total available contingency below the PMOC's

recommended level for this stage of the project. Continued delays may further increase escalation-related costs and further deplete contingency. Additionally, the MTA's reported contingency forecast is based on an outdated estimate and is therefore likely overstated. Additional information is provided in Section 2.12.1.

b(4)

[illegible]

	[REDACTED]
	[REDACTED]
	[REDACTED]
	[REDACTED]
	[REDACTED]

1.4 Key Indicators Dashboard

Table 4 – Key Indicators Dashboard

KEY INDICATORS DASHBOARD (POST-GRANT STATUS)					
Project Sponsor:		New York Metropolitan Transportation Authority (MTA)			
Project Name:		Second Avenue Subway (SAS) Phase 2 Project			
Date:		August 2025			
Project Detail					
Oversight Frequency:		Monthly			
Element	Status			Prior Status (G/Y/R)	Issue or Concern
	G	Y	R		
Project Management Plan (PMP)		●		●	MTA is not providing timely updates or review/management of budgets, schedules, risk registers and other management tools as specified in its PMP. Improvements are being made now that the project is fully underway.
Management Capacity and Capability (MCC)		●		●	MTA is behind schedule in bringing on project staff; however, the PMC staff was engaged on the project in May 2025.
Cost		●		●	Unallocated contingency is being consumed due to high bid prices, and the total drawdown remains unclear without a complete, updated EAC. Cost projections for upcoming construction contracts have now been completed. Future contract awards may further impact contingency drawdowns.
Schedule		●		●	b(4)
Quality	●			●	Currently there are 15 NCRs with 3 remaining open
Safety	●			●	No recordable injuries reported
Risk		●		●	b(4)
Legend					
Green	Satisfactory: No Corrective Action necessary				
Yellow	Caution: Risk/Issues exist. Corrective Action may be necessary				
Red	Elevated for immediate Corrective Action; significant risk to the health of the project				

1.5 Core Accountability Information

Core accountability information, in year of expenditure dollars, is provided in Table 5.

Table 5 – Core Accountability Items

		Original (FFGA)	Current Forecast	PMOC Assessment of Current Forecast
		(\$ Million)		
Cost	Capital Cost Estimate	\$7,699	\$7,699	Acceptable
b(4)				
Schedule	Required Completion Date	9/30/32	11/07/31 ²	Acceptable
Project Progress			Amount (\$ Million)	Percent of Total
Total Expenditures ³	Actual cost of all eligible expenditures completed to date	\$448.5		5.8%
Planned Value to Date ³	Estimated value of work planned to date	Not Applicable (N/A)		N/A
Actual Value to Date ³	Actual value of work completed to date	N/A		N/A
Contract Status			Amount (\$ Million)	Percent
Total Contracts Awarded	Value of all contracts (design, support, construction, equipment) awarded; % of total value to be awarded	\$2,544.9		41.5%
Construction Contracts Awarded	Value of construction contracts awarded; % of total construction value to be awarded	\$2,088.6		37.2%
Physical Construction Completed	Value of physical construction (infrastructure) completed; % of total construction value completed	\$31.6		0.6%
Rolling Stock Vehicle Status	Date Awarded	No. Ordered	No. Delivered	
N/A	N/A	N/A	N/A	
Next Quarterly Review Meeting (QRM) Date:	TBD			
b(4)				

(3) Basis is accrued value and measured completion against Schedule of Values.

Table 6 presents the federal grant information:

Table 6 – Federal Grant Information

Federal Award ID Number or Source	Obligated (\$)	Disbursed (\$)	% Disbursed
FTA 5309 Capital Investment Grant Program NY-2023-106-00	\$946,784,764	\$124,857,504	13.2%

2.0 BODY OF REPORT

2.1 Summary of Monitoring Activities

The following monitoring activities were undertaken by the PMOC during the reporting period:

- *Attended FTA Weekly Check-In meetings with MTA on August 4, 2025.*
- *Transit-Oriented Development (TOD) introduction to DEA team on August 13, 2025.*
- *SASP2 final transition meeting with Burns on August 14, 2025.*
- *SASP2 C2 Bid package meeting on August 25, 2025*
- *Monthly MTA SAS P2 oversight meeting on August 26, 2025*
- *SASP2 Cost analysis Discussion with Burns and FTA on August 27, 2025.*
- *SASP2 Housing of Last Resort Plan review on August 29, 2025*
- *Reviewed third-party coordination progress.*
- *Provided project status presentations for FTA.*
- .

2.2 Project Management Plan and Sub-Plans

Project specific Project Management Plan (PMP) and sub-plans were provided during the Entry into Engineering reviews in March 2019. MTA Construction and Development (MTACD) submitted updated management plans and developed additional plans prior to execution of the FFGA. Table 7 provides a list of the various management plans, their version history, and their status.

Table 7 – PMP and Sub-plans

Management Plan	Version History	Date	Notes
PMP	Version 2	March 25, 2019	Submittal for Entry into Engineering reviews in March 2019.
	Draft Version 3	May 8, 2020	Draft submittal for preemptive review prior to a request for an FFGA.
	Version 4	March 18, 2022	Review provided May 3, 2022.
	Version 5	July 1, 2022	No review provided.
	Version 6	August 19, 2022	Review provided September 27, 2022.
	Version 7	October 25, 2022	Review provided January 25, 2023.
	Version 8	August 22, 2023	Review provided October 27, 2023.
	Version 9	November 30, 2023	MTA incorporated comments.
Real Estate Acquisition Management Plan (RAMP)	Version 1	March 19, 2019	Submittal for Entry into Engineering reviews in March 2019.
	Draft Version 2	May 8, 2020	Draft submittal for preemptive review prior to a request for an FFGA. PMOC review completed, and comments provided in August 2021.
	Version 3 (Revision not labeled)	February 22, 2022	Review provided March 2022.
	Version 4 (Revision not labeled)	May 31, 2022	Review provided July 2022.
	Version 5 (Revision not labeled)	August 26, 2022	Review provided September 30, 2022.
	Version 6 (Revision not labeled)	February 22, 2024 (mis-labeled February 22, 2022)	Review provided May 2, 2024.

Management Plan	Version History	Date	Notes
	Version 7 (Revision not labeled)	October 31, 2024	Review provided January 31, 2025.
Quality Management Plan (QMP)	Draft Version 1	May 8, 2020	Draft submittal for preemptive review prior to a request for an FFGA.
	Version 2	April 1, 2022	Review provided May 3, 2022.
	Version 3	August 11, 2022	Review provided September 26, 2022.
	Version 4	October 21, 2022	Review provided as a part of the OP 52 report in October 2022.
	Version 5	December 2, 2022	MTA incorporated comments.
Rail Fleet Management Plan (RFMP)	Version 1	March 19, 2019	Submittal for Entry into Engineering reviews in March 2019.
	Version 2	June 30, 2022	Review provided October 3, 2022.
Bus Fleet Management Plan (BFMP)	Version 1	March 20, 2019	Submittal for Entry into Engineering reviews in March 2019.
	Version 2	June 30, 2022	Review provided as a part of the OP 52 report in October 2022.
Safety and Security Management Plan (SSMP)	Version 1	March 19, 2019	Submittal for Entry into Engineering reviews in March 2019.
	Version 2	April 21, 2022	Review provided May 23, 2022.
	Version 3	June 30, 2022	Review provided August 22, 2022.
	Version 4	January 6, 2023	
Risk and Contingency Management Plan (RCMP)	Version 1	December 21, 2018	Submittal for Entry into Engineering reviews in March 2019.
	Version 2	April 1, 2022	Review provided June 3, 2022.
	Version 3	August 2, 2022	
	Version 4	August 17, 2022	Review provided October 8, 2022 as part of the Risk Refresh OP 40 report.

PMOC PMP and Sub-Plan Observations, Opinions, and Analysis

- Plans and procedures are established and are in the PMP, Cost Management Plan, Schedule Management Plan, and Risk Management Plan but have only partially been followed because the project was not yet fully underway due to local funding issues. Improvement is being made now that the project is fully underway.
- The PMOC recommended, at meetings with MTA in June 2024 and July 2024, that MTA review the PMP and sub-plans for adherence. This would include staffing plans, the Cost Management Plan, Schedule Management Plan, and the Risk and Contingency Management Plan (RCMP). The PMC was onboarded recently (April 2025) and is now actively reviewing the management plans and procedures. Updates are to clarify processes and ensure alignment between contractual requirements and project execution.

2.3 Project Management Capacity and Capability (MCC)

2.3.1 Technical Capacity to Conduct the Project

2.3.1.1 Project Organization

The SAS Phase 2 Project Management Team is comprised of MTACD personnel and project consultant staff. There are currently five support contracts that include services for public outreach, real estate relocation, general engineering, construction management, and environmental.

2.3.1.2 Project Staffing

The PMP identifies the construction management support during procurement, preconstruction, and construction. MTA has awarded a PMC contract to significantly enhance the core in-house staff with additional staff to manage Contracts 2, 3, and 4. MTA's plan was to bring some of the PMC staff onto the project at the end of March 2025 to assist with the Contract 2 procurement process. However, the PMC staff was brought onto the project at the end of April 2025. The integrated organization chart was provided by the MTA on July 23, 2025.

2.3.1.3 Public Outreach

In September 2017, MTA established a Community Outreach Center at 69 East 125th Street specifically for the SAS Phase 2 project to conduct meetings, presentations, and outreach activities in the community. The center will remain open and outreach activities will continue throughout the construction of the project.

2.3.2 Compliance with Applicable Statutes, Regulations, Circulars, and Technical Standards

Preparation of the Supplemental Environmental Assessment (EA) required coordination with State Historic Preservation Offices for consultation with respect to Section 106 of the National Historic Preservation Act. MTA identified historic structures along the corridor and has progressed the design to limit the impact to those structures.

MTA is participating in coordination meetings with the Mayor's Office that includes all city agencies involved in the project similar to SAS Phase 1 meetings.

PMOC Management Capacity and Capability-related Observations, Opinions, and Analysis

- The PMOC is concerned with staffing up and the Management Capacity and Capability (MCC) of the project. The PMC contract is being relied upon for a major portion of the management staff and the procurement fell well behind the planned schedule.
- Now that the project is going to fully commence, a quick ramp up of staffing and adherence to processes and procedures will be needed and will likely cause a slow start and challenges adhering to the schedule.
- The PMOC recommends that the staffing plan for the entire project be updated and reviewed now that MTA is fully commencing work on the project. This was recommended to be done no later than shortly after the PMC contract was awarded. MTA has explained that it will develop the updated plan in the coming months.
- In addition to the above, PMOC lessons learned from other ongoing mega-projects show that the Construction Manager/Owner Representative being onboarded to the project at the same time or after the Design-Build Contractor causes a tight project orientation and setup period for the Construction Manager/Owner Representative and an inability to bring in-depth knowledge to the Design-Build procurement process and documents.

b(4)

- *Several PMC key positions on Contract C2 remain vacant despite the issuance of the Notice to Proceed (NTP).*

2.4 National Environmental Policy Act and Environmental Mitigation

The Supplemental EA to the SAS Final Environmental Impact Statement (FEIS) was prepared in accordance with the National Environmental Policy Act (NEPA, for the FTA as lead agency, to evaluate potential impacts related to the advancing design of Phase 2.

This Supplemental EA evaluated each of the environmental impact areas considered in the 2004 FEIS to determine whether the modified design would result in any new adverse impacts not disclosed in the 2004 FEIS or require mitigation measures not identified in the 2004 FEIS. Following public review of this Supplemental EA and consideration of all public comments, FTA determined that no new or different significant adverse impacts would result, and a Finding of No Significant Impact (FONSI) was issued in November 2018.

In April 2020, MTA submitted the first reevaluation for six changes that have occurred in the project since the FONSI was issued in November 2018. The changes are related to property acquisitions and some cost reduction modifications. On August 14, 2020, FTA determined that the modifications would not result in any new adverse impacts from those presented in the Supplemental EA and in the November 2018 FONSI.

The first reevaluation in 2020 incorporated into the project modifications to the design of the project's planned Ancillary A facility on 125th Street. Based on further engineering, MTA has incorporated an additional design modification to Ancillary A. This second reevaluation was prepared to determine whether the proposed modification of Ancillary A would result in any new or different impacts from those previously identified. This reevaluation was submitted on July 16, 2024. MTA provided additional information per FTA's request, and that information has been evaluated by FTA. FTA will not require a supplemental Environment Impact Statement; however, a public document is being developed and is to be posted by MTA.

MTA provided to FTA a third reevaluation worksheet in October 2024 for various design changes that include the "cost containment" changes. These changes include the bellmouth reduction or elimination, reconfigured launch box (not within the street), platform reconfiguration at the 106th Street Station (to reduce the width, which reduces the station envelope size), and 116th entrance relocations (to enter below, instead of from the top of the box structure). This documentation was evaluated by FTA's planning group. FTA raised concerns about the timing of the deadline for FTA's approval of MTA's reevaluation of cost containment measures. MTA prefers approval in June 2025 because this is when the technical proposals from the Design-Build teams are due. MTA stated that the cutoff date is August 2025 because this is when MTA plans to award Contract 2. MTA met with the New York Fire Department and City Emergency Services on May 22, 2025, and solicited their feedback on the updated 116th Street Station design including egress, path of travel, emergency access, and evacuation. MTA will host a public outreach session on June 3, 2025, and allow comments until June 8, 2025. MTA confirmed that no issues were reported during the meeting with the New York Fire Department Bureau of Emergency Medical Services to discuss the cost containment items. MTA is obtaining a written statement to this effect. FTA recommended a simple presentation to the community board, like that which MTA historically provided for similar projects in the past. MTA is to send public comments to FTA.

2.5 Project Delivery Method and Procurement

The project will be delivered using three major contract packages and one early works package as follows:

Contract 1 – Early Utility Relocation: This contract package provides building protection (underpinning, basement remediation, and instrumentation) and utility relocations for the 106th Street Station open-cut area. It is being implemented using a Design-Bid-Build procurement method.

Contract 2 – 116th and 125th Street Stations and Tunneling: This contract will construct the 116th Street Station, 125th Street Station, bellmouth, and TBM launch box. It will include all TBM tunneling and the cavern excavation for the 125th Street Station. It will also include retrofitting of the existing tunnel to include the 116th Street Station. The contract will also include utility relocations, demolition, support of excavation and building protection for the open-cut areas at entrances and ancillary buildings. The contract will be Design-Build.

MTA commenced the procurement process with issuance of an RFQ on April 17, 2024, and statements of qualifications were received June 4, 2024, from two bidders. The procurement process was on hold until November 2024; however, MTA released the RFP at the end of December 2024.

During May 2025, MTA submitted a request to reduce the payment and performance bond requirement for this contract, which has since been approved by the FTA.

The Alternative Technical Concepts (ATCs) submission deadline was April 14, 2025. A total of 36 ATCs were submitted by the Design-Build Teams. MTA has responded to 14 ATCs. The PMC is providing support to MTA for ATC responses involving tunneling.

MTA received a technical proposal for Contract 2 on June 23, 2025. The MTA received cost proposals for C2 on July 16, 2025. Evaluations are in progress, and negotiations commenced during the week of July 21, 2025. *MTA has awarded the first major Design-Build Construction contract, C2, on August 29, 2025, with Notice to proceed is anticipated on September 2, 2025.*

Contract 3 – 106th Street Station and Existing Tunnel Rehabilitation: This contract package will provide the cut-and-cover construction of 106th Street Station and a portion of the retrofit of the existing tunnel between the 106th and 116th Street stations. The contract will also include utility relocations, demolition, support of excavation and building protection for the open-cut areas at entrances and ancillary buildings. The contract will be Design-Build.

b(4)

Contract 4 – Station Finishes, Ancillary Buildings, Systems, and Trackwork: This contract package will provide all station finishes and fit-out; tunnel fit-out (including systems and trackwork); station entrances, ancillary buildings (including the above and below grade structure and fit-out); final street level restoration (including signage, signals, and striping); and testing and commissioning. This contract will also include a retrofit of the SAS Phase 1 train control system. Further, the contract will include final utility configurations. The contract was anticipated to utilize a Design-Build procurement method, but the decision to change the method to Design-Bid-Build was made in November 2023, after execution of the FFGA. *The design is currently 40 percent complete. The 60 percent design drawings are scheduled for submission in*

the first quarter of 2026, followed by 100 percent design drawings in the third quarter of 2026. The Request for Proposals (RFP) is planned for issuance in the fourth quarter of 2026, with the Notice to Proceed (NTP) anticipated in the second quarter of 2027.

For cost discussions on these contracts, refer to PMOC Cost-related Observations, Opinions, and Analysis in Section **Error! Reference source not found.** of this report.

PMOC Procurement-related Observations, Opinions, and Analysis

- *Contract 2:*
 - The RFP Volume 2 Design-Build Agreement was provided to the PMOC at the end of February 2025.
 - General Conditions for the contract have not yet been provided to the PMOC.
 - Preliminary Project Requirements and Design Criteria (PRDC), technical specifications, and contractual design drawings were provided in June 2022. However, some sections were left for insertion of information at a later date.
 - The PMOC requested at the July 2, 2024 PMOC monthly meeting that the RFP, including the PRDC, and all documents associated with it be provided. MTA explained that it will only provide these documents once the procurement concludes, but not prior. This process does not allow adequate time for the PMOC to provide beneficial feedback for MTA, and the PMOC recommends MTA review this process for the upcoming contracts. *On June 23, 2025, the PMOC again requested that the MTA provide the design documents, RFP package, and approved ATCs and MTA provide these documents on August 22, 2025.*

b(4)

- *Contract 3:*
 - General Conditions for the contract have not yet been provided and are being modified.
 - The updated PRDC, technical specifications, and contractual design drawings were provided in June 2022. However, some sections have been left for insertion of information at a later date.
 - The RFQ was issued on July 11, 2025.
- *Contract 4:*
 - MTA has not commenced the procurement process for this contract.
- There are many incomplete procurement documents and documents in various stages of development as described above. The procurement process, as a whole, has been challenging for the project up to this point. The PMOC recommends that MTA provide the procurement documents prior to the advertisement dates reflected in the updated integrated project schedule to evaluate if the schedule is achievable and if risks have been mitigated. MTA's position is that the documents will be shared when the procurement for contract(s) is completed; however, the PMOC's recommendation remains.

2.6 Design

The MTA is authorizing the Design Consultant P2P to refine the design for several items and has included them as modifications to the consultant agreement. Updates to the status of the modifications consist of the following:

- Preliminary Design has been developed by P2P for the bellmouth reduction (to be slimmed down to a rectangular box) or elimination, reconfigured launch box (not within the street), platform reconfiguration at 106th Street Station (to reduce the width, which reduces the station envelope size), 116th entrance relocations (to enter in below, instead of from the top of the box structure), and Ancillary A retrieval shaft reconfiguration. MTA is describing these design changes as cost reduction efforts. A draft white paper of changes, without cost and schedule impacts, was provided August 7, 2024, and additional information was provided in a letter to FTA Region 2 on August 30, 2024. MTA explained these elements will no longer be considered as options in the Contract 2 procurement documents, but rather MTA will have the Design-Build contractor include these as the scope of work during the procurement process.
- Some of the preliminary design and scope is not complete for work such as the Communications Based Train Control. P2P will, in the future, be issued contract modifications to complete this work.
- MTA has awarded the design consultant, P2P a contract modification for the Contract 4 Final Design. A design schedule is under review by MTA.

PMOC Design Observations, Opinions, and Analysis

- The PMOC previously worked with MTA to include, at a minimum, general processes in its management plans related to design management of Design-Build contracts. An example is the flow chart and design review sections included in PMP Version 7 and the updated Quality Management Plan (QMP). However, what will be included in the Design-Build contracts is unclear.
- Onboarded in April 2025, the PMC is actively reviewing management plans and procedures—especially those for Design-Build contracts—to clarify processes and align execution with contractual requirements. The PMOC recommends continued focus on core responsibilities, including quality plans, the PMP, and design documentation.
- The PMOC recommends MTA revise the Interface Management Plan with information on how Contract 4 Final Design will be coordinated with Contracts 2 and 3 Final Design. This should include updating the plan once a design schedule is received from the C2 Design-Build contractor. The goal is to support the development of a more advanced IPS. The updated plan can then help ensure that contract language clearly defines roles and responsibilities.
- *The PMOC recommends MTA to share the design updates on the monthly basis for Contract 4*

2.7 Value Engineering and Constructability Reviews

A Value Engineering Study Final Report, dated November 29, 2018, was produced after a formal Value Engineering workshop was held from November 12 to November 16, 2018. The study assessed geotechnical and underground structures only. The MTA's General Engineering Consultant P2P provided a Value Engineering Analysis Report Version 01 dated March 19, 2020, that provided an evaluation of the value engineering team's recommendations.

A Final Value Engineering Report dated December 23, 2019, was provided in February 2021. The report is related only to the architectural finishes and systems in Contract 4.

An additional value engineering report dated September 27, 2019, and titled Space Utilization and Configuration Value Engineering Analysis Report, was submitted to FTA in March 2022. A cover page and introduction dated April 1, 2022, was also included.

PMOC Value Engineering Observations, Opinions, and Analysis

- The value engineering reports are satisfactory; however, the PMOC suggests streamlining or deemphasizing station customization and design to expedite delivery and save on construction costs. Additionally, the submitted Space Utilization and Configuration Value Engineering Analysis Report does not indicate which value engineering options were implemented or are still to be implemented.
- MTA has indicated that no more value engineering sessions are planned. MTA did include revisions to the PMP to address value engineering proposals from contractors during construction.

2.8 Real Estate Acquisition

MTA provided an overall summary of properties acquisition based on the tracking sheet dated August 19, 2025, and the data reveals no change from the previous MTA submission of July 22, 2025, which includes full fee, permanent, and temporary easements required by the SAS-2 Program as shown in Table 8.

Table 8 – SAS-2 Program Full Fee, Permanent, and Temporary Easements

	<u>Total Due</u>	<u>Total Acquired</u>
<i>Full Fee</i>	34	16
<i>Temp Subsurface</i>	46	0
<i>Perm Subsurface (also TE)</i>	13	1
<i>Temp Subsurface (also PE)</i>	10	0
<i>Temp Sub (No EDPL) (also PE)</i>	3	1
<i>Subsurface Temp No EDPL</i>	2	1
<i>Partial Acquisition (also TE)</i>	1	0
<i>Perm Ground Surface Easement</i>	1	1
<i>Sub & Surface Temp (also Partial Acquisition)</i>	1	0
Total:	111	20

In total, the preliminary design will require 35 full property acquisitions and 15 permanent easements as shown in Table 9. The majority of the permanent subsurface easements are at the 125th Street Curve under the 11 properties identified in the 2018 Supplemental EA. Sixty temporary subsurface and surface construction easements have been identified so far. Additionally, the current design drawings indicate that approximately 25 feet into most property lines along the alignment will need to have temporary easements.

Each station entrance and ancillary building requires real estate acquisitions. Other real estate acquisitions are necessary for TBM entrance and construction staging. *Note that the PMOC gathered data by using the property acquisitions and relocation data presented in the updated*

Tracking Sheet provided by MTA and using information from the latest FTA/NYCT QRM (Q2) Core and Sandy meeting that was held on July 1, 2025.

Table 9 – Property Acquisitions

<i>Segment</i>	<i>Acquisitions Needed</i>	<i>Acquisitions Acquired</i>	<i>Permanent Easements Needed</i>	<i>Permanent Easements Acquired</i>
<i>106th Street Station</i>	<i>8</i>	<i>0</i>	<i>2</i>	<i>0</i>
<i>116th Street Station</i>	<i>19</i>	<i>9</i>	<i>0</i>	<i>0</i>
<i>125th Street Curve</i>	<i>0</i>	<i>0</i>	<i>12</i>	<i>1</i>
<i>125th Street Station</i>	<i>6</i>	<i>6</i>	<i>1</i>	<i>1</i>
<i>125th Street Tail Tracks</i>	<i>2</i>	<i>1</i>	<i>0</i>	<i>0</i>
<i>TOTAL</i>	<i>35</i>	<i>16</i>	<i>15</i>	<i>2</i>

2.8.1 Acquisition Schedule

No full acquisitions are required for Contract 1; however, there are significant properties and easements necessary for Contract 2. The priority acquisitions for MTA are the TBM launch location near 120th Street and the 125th Street staging area for the cavern work.

At 125th Street, the needed properties and permanent easement have been acquired. The permanent easement is with a third-party developer, in which a portion of the design and construction will need to be coordinated. MTA explained that its design will allow for the development to occur without impact to the project schedule or scope. MTA provided its draft preliminary architectural design to the PMOC in January 2025. This design is to provide for an overbuild in accordance with the executed agreements with the developer. MTA will accommodate the maximum allowable zoning load into the final design for any future overbuild.

At 120th Street, the property needed has been acquired and some of the properties are abandoned/vacant. However, there are two parcels with relocations. One of the relocations (Lucky Laundry) has vacated the site, will not reconstitute the business, and MTA is working with their attorney to quantify eligible benefits. MTA reported that the other relocation (a church) had closed on a replacement purchase. The church is to advise on what items to relocate, and MTA has received FTA appraisal concurrence. MTA does not foresee any delays to the project schedule due to these relocations.

MTA has received board approval, hired appraisers, and is moving forward with appraisals of the remaining parcels on the project. The next priority for property acquisition is at 116th Street Station, which is needed for Contract 2. MTA had appraisals and review appraisals done for all these properties; however, many of these appraisals were outdated and therefore are being updated. The updated appraisals are nearing completion. The 106th Street acquisitions for Contract 3 started being appraised in May 2025 with FTA concurrence submittals anticipated in August 2025. There are a large number of relocations at 116th Street properties, at which, the relocation process is now commencing. Table 10 below provides the status of relocations.

Table 10 – Property Relocations

<i>Segment</i>	<i>Commercial Relocations Needed</i>	<i>Commercial Relocations Acquired</i>	<i>Residential Relocations Needed</i>	<i>Residential Relocations Acquired</i>
<i>125th Street</i>	<i>2</i>	<i>1</i>	<i>0</i>	<i>0</i>

116 th Street	10	0	9	0
106 th Street	11	0	21	0
TOTAL	23	1	30	0

PMOC Real Estate Observations, Opinions, and Analysis

- *In summary, the real estate acquisitions have not progressed significantly during this period to meet the schedule needs of the project at this time, largely due to the schedule delays allowing more time for the acquisitions and relocations. It is anticipated that relocation of commercial properties will take approximately 6 months from the date of acquisition, whereas relocation of residential properties will take approximately 12 months from the date of acquisition. Any schedule delay with respect to the relocation of commercial and residential properties by March 2026, related to Contract C3 would pose a potential risk to the overall completion of the SAS-2 Program.*
- *It is anticipated that the relocations will align with the project need-by dates, which will be adjusted as the Design-Build contractor's schedules are developed and finalized.*
- Appraisals and valuations were being advanced, but offers, condemnations, and closings were paused in June 2024 due to funding issues related to Congestion Pricing. The real estate acquisition activities have fully resumed now that Congestion Pricing is being implemented.
- The relocation consultant being used by MTA changed personnel and the PMOC expressed concerns to MTA regarding their experience with the federal requirements. The PMOC recommended that MTA work with its relocation consultant to develop and provide a more comprehensive explanation as to how the project will meet its day-to-day obligations to provide federally mandated relocation assistance to all those affected by the project. Subsequently, MTA's consultant has committed to providing resources for mentoring, training, and support in developing expertise in the Uniform Act. MTA is reporting that the consultant has honored that commitment, delivering both formal and informal training and, most importantly, delivering consistent, daily, on-the-job mentoring.
- *For 106th Street Station, the FTA will concur with the remaining appraisals exceeding \$5 million during August 2025.*

2.9 Third-party Agreements

The PMOC provided a review of critical third-party agreements based upon OP 39 on September 22, 2022. The consensus was that the following agreements were critical:

- Utility Agreements (Consolidated Edison [Con-Ed], Empire City Subway (ECS))
- Agreements with Developers (discussed in Section 2.8)
- New York City Department of Buildings (NYCDOB) Agreements
- New York City Department of Environmental Protection (NYCDEP) Agreements

The following sub-sections discuss third-party agreement status.

2.9.1 Intergovernmental Agreements

NYCDOB: Related to 106th Street Station utility relocation work (Contract 1), there are 34 properties that will need underpinning or interior building strengthening; MTA previously completed the design for this work and submitted the designs for NYCDOB to review. NYCDOB reviewed and provided concurrence with the design in December 2020. MTA is

submitting into the NYCDOB system the individual property designs for Contract 1 so that the contractor can pull the permits in the future. Sixteen of the 33 applications have been approved by the NYCDOB. The final design for Contracts 2, 3, and 4 are still to be coordinated; however, a high-level Memorandum of Understanding based on the preliminary design has been executed to coordinate the future Design-Build work.

NYCDEP: The NYCDEP is the agency in charge of the water and wastewater utility relocations necessary for the project. There are major east-west wastewater reconstructions that will be necessary for the project, and MTACD has reached concurrence on the final design for the Contract 1, 106th Street Station utility relocation work.

MTACD conducted a meeting with NYCDEP on March 15, 2021, to discuss the utility relocations in those areas outside of the 106th Street Station utility relocation (Contract 1). A presentation included NYCDEP roles pre-award and post-award of the Design-Build contracts. This included seeking concurrence or general agreement with the preliminary design as well as an understanding of NYCDEP reviews of the final design under the Design-Build contract. Subsequently, MTACD conducted design comment resolution meetings with NYCDEP on preliminary design plans for the Design-Build scope of work in Contracts 2 and 3. MTA obtained an Approval in Concept Letter for the Design-Build scope of work in November 2022.

New York City Department of Transportation (NYCDOT): The contractor is performing the work with the new phasing and logistics that were incorporated into Schedule Update #6. The original phasing was to perform work on one side of Second Avenue and, after completion, move to the other side. Due to delayed access agreements, work is to be performed on both sides of Second Avenue concurrently. NYCDOT has approved the maintenance of traffic protection for the planned work. MTA is relying primarily on the Design-Build contractors to coordinate work related to Contracts 2, 3, and 4.

2.9.2 Utility Relocation Agreements

The major utility relocations are with Con-Ed and ECS.

MTA received concurrence of its 100 percent design documents for Contract 1 from both Con-Ed and ECS, the underground subsidiary of Verizon Communications, prior to execution of the FFGA. This concurrence was coordinated at the recommendation of the PMOC after deeming these utility relocation agreements as critical. However, MTA needs to receive Con-Ed “design and layouts” prior to starting the relocation work for Contract 1.

MTACD conducted a meeting with Con-Ed on February 9, 2021, to discuss the utility relocations in those areas outside of Contract 1 (106th Street Station area). The presentation included Con-Ed roles pre-award and post-award of the Design-Build contracts. This included seeking concurrence or general agreement with the preliminary design as well as an understanding of Con-Ed reviews of the final design under the Design-Build contract. Subsequently, MTACD and Con-Ed have conducted coordination meetings on the preliminary design documents for Contracts 2 and 3. MTA received an Approval in Concept Letter from Con-Ed in November 2022.

Other utility coordination includes the submittal of load letters for TBMs, traction power substations, stations, and ancillary buildings. MTA has received approval from Con-Ed for the anticipated loads and anticipated locations. MTA will obtain the final layout drawings and requirements approval based upon the final designs submitted by the Design-Build contractor.

2.9.3 Other Third-party Agreements

Contract 1 will require access agreements with 34 property owners to provide access to their properties for building protection (underpinning) and cellar work done on their buildings. Eighty-six percent of these agreements have been signed, and the remaining are with outside legal counsel that has been retained to expedite the agreement process for MTA. The access dates described in Contract 1 (April 1, May 1, and June 1, 2024) have not been met by MTA.

b(4)



These access agreements continue to delay work progress because the required pre-construction surveys, underpinning test pits, HAZMAT surveys, asbestos sampling, and instrumentation installation cannot commence without these agreements being procured.

b(4)



PMOC Third-party Agreements Observations, Opinions, and Analysis

- All identified critical third-party agreements have been executed.
- Based on PMOC recommendations for early coordination, MTA has achieved conceptual design concurrence for utilities in the areas outside of Contract 1. However, the PMOC has recommended that the issue regarding the need to receive a second round of design concurrence from Con-Ed (“Con-Ed design and layouts”) prior to starting the relocation work for Contracts 2 and 3 be resolved.

b(4)

- MTA has received potential change notices from the contractor for not being provided access to the properties per the contract timelines.
- The PMOC recommended that MTA further develop the Third-party Agreement/Permit Tracking Matrix to include all permits and agreements needed for the project and also recommended that these agreements be obtained as early as possible. This would include property owner agreements needed for underpinning and cellar work and any other agreements or permits needed for construction. This information should be included in Design-Build procurement documents as reference, especially now that MTA will need to expedite procurements to get back on schedule. Subsequently, MTA further developed the Contract 2 matrix; however, this was not included in the procurement documents. The PMOC also recommended these agreements and permits be included and managed in the project schedule.

2.10 Construction

Contract 1:

The relocation of the bike lane from Second Avenue has been completed. Other construction work includes the following:

- 63 of 80 buildings have received installation of instrumentation monitoring equipment, including 13 of 14 Automated Motorized Total Stations installed and powered.
- *A subcontractor to MTA's contractor, Wang Technology, has completed 74 of the 79 preconstruction building surveys.*
- 27 of 33 hazardous material surveys have been completed.
- The contractor mobilized to the east side of Second Avenue between 106th and 108th Street for gas and electrical installations. The pile load test was completed.
- *Electrical conduit installations continued on side streets (24.52 percent complete).*
- *ECS communication installations are ongoing (10 percent complete).*
- *Electrical manhole installation is ongoing (26 manholes completed).*
- *The 20-inch watermain distribution work is ongoing (47.72 percent complete).*
- *The 12-inch watermain installation is ongoing (95.05 percent complete).*
-
- *Sewer installation work is 7.95 percent complete and includes excavation for sewer, electrical, and gas along the west side of 2nd Avenue from 106th Street northward; work is ongoing.*
- *Mini-pile installations for sewer support have been initiated and are ongoing at 105th Street and 2nd Avenue, as well as at the northeast corner of 2nd Avenue between 106th and 107th Streets.*
- *Gas main installation work is 7.10 percent complete with excavation ongoing at 2nd Avenue and 105th Street and along the west side of 2nd Avenue from 106th to 109th Streets.*
- *Underpinning shop drawings for properties 659-23 and 1659-121 were returned Revise and Resubmit; resubmission from CAC is pending.*

The major construction phase commenced in mid-September 2024 with the sidewalk cutback on the west side of Second Avenue. This work included narrowing the sidewalk to adjust the traffic to the west side of Second Avenue. MTA was to start major construction on Second Avenue in mid-January 2025 with water main relocation and underpinning of buildings; however, the construction phasing has been revised due to not having access agreements needed for underpinning. The contractor started utility relocations on the side streets for water main and Con-Ed electrical relocations at the end of September 2024.

Contract 2:

- Contractor to mobilize and set up office space and submit the pre-construction submittal within first 30 days after NTP
- Outside counsel (TKD), in coordination with the MTA Community Outreach Team and with the support of the PMC, continues to secure outstanding access agreements for instrumentation and building assessments. To date, 66 percent of agreements have been executed, with a target of 75 percent completion by the Notice to Proceed (NTP). A priority list of 14 properties requiring access by NTP has also been provided to TKD.
- Initial construction activities to commence in the 4th quarter of 2025.
- Heavy construction activities to commence in the 1st quarter of 2026.

2.11 Vehicle Technology and Procurement

No vehicles are anticipated as a part of this project.

2.12 Project Cost

2.12.1 Funding Sources

The Funding Sources, according to MTA's FFGA SCC Workbook, are depicted in Table 11. **Error! Reference source not found..**

Table 11 – SAS Phase 2 Funding Sources

Funding Source	Funding Summary	
	\$1,000s	%
FTA Share (5309 New Starts Share)	\$3,404,884	44.2%
FTA other funding sources	\$0	0.0%
Local Share (MTA Capital)	\$3,563,333	46.3%
Local Share (Other MTA Operating)	\$730,813	9.5%
Total Project Cost	\$7,699,031	100.0%
Total Federal Share	\$3,404,884	44.2%
Total Local Share	\$4,294,147	55.8%

2.12.2 SCC Budget and Costs to Date

The SAS Phase 2 Budget Summary by SCC, according to the FFGA SCC Workbook submittal, and the expended amount to date is depicted in Table 12 below. At the request of the PMOC, MTA submitted an updated EAC on September 3, 2024. MTA's EAC remained at \$6.968 billion (excluding finance charges), which is consistent with the estimate in the FFGA. The estimate submitted, however, was a summary level estimate and was not provided in SCC format. MTA subsequently submitted updated cost estimates for Contract 2 construction costs on March 13, 2025, Contract 3 construction costs on April 1, 2025, and Contract 4 construction costs on

April 30, 2025. Table 12 presents the budget and expenditures by SCC as of June 30, 2025. MTA C&D reports this information on a quarterly basis.

Table 12 – SAS Phase 2 Budget and Expenditure Summary by SCC

[illegible]

Summary level information related to construction contracting cost, as provided by MTACD for the Risk Assessment Refresh in September 2022 (August 2022 cost update), is presented in Table 13. Each major construction contract will include its own engineering force account staff and transit authority labor. *The PMOC will refresh table 13 and table 14 in the next monthly update:*

Table 13 – Construction Cost by Contract[illegible]

Table 14 provides a comparison of actual versus estimated third-party construction contracts. The Risk Assessment Refresh P65 target is also included for comparison. The PMOC has also provided an estimated construction contract column as described below.

Table 14 – Actual Versus Estimated Construction Cost by Contract

	b(4)				

[illegible]

(1) From MTA's March and April 2025 updated estimates for C2, C3, and C4 and using the MTA's 2022 FFGA YOE escalation of 12.41% for C2, 17.41% for C3, and 21.23% for C4.

(2) These are PMOC forecasts on the effect of project delays on third-party construction contract prices (e.g., escalation only). These forecasts do not include the Design, Market, Construction, and Post-Construction Risks. MTA's cost contingency drawdown curves indicate 28% drawdown at the time of bids; this would exceed these escalated forecasts.

(3) Includes C2 “cost containment” of approximately \$200 million reduction to the estimated cost.

(4) P2P Modification for final design of Contract 4 added for reference to allow comparison of previous Risk Assessment information. However, the P2P modification does not include Communications Based Train Control (CBTC) design costs nor design coordination/oversight during construction.

Note: b(4)

PMOC Cost-related Observations, Opinions and Analysis

- The PMOC estimates the additional cost related to a one and a half-year delay to be on the order of b(4)
 - The PMOC's opinion is that the escalated costs per contract may be exceeded due to the following risks that were not included in the PMOC Risk Assessment Refresh:
 - The contractor estimating period when cost proposals are due is shortened to only four months, and less than 30 percent design drawings. Contractors will likely place contingency upon undeveloped quantities and their inability to further the design. The procurement period may be lengthened instead.
 - There is limited time to develop ATCs during the proposal period.
 - MTA is requiring the contractor to be responsible for third-party coordination. Contractors will likely place contingency upon these activities if MTA does not provide further coordination or additional definition of agreements and permits anticipated.
 - MTA is requesting many incentive/liquidated damages milestones in the contract. These milestones could possibly be included with additional cost in the contractor's proposal or negotiated on different terms and thus lengthen the procurement timeframe, but they could also help the project meet the RSD.
 - Updated cost estimates, including costs that are not direct construction costs, are needed in order for the EAC and cost contingency remaining to be concurred with.
 - b(4)
- This is prior to starting physical construction with those associated risks remaining. The PMOC's opinion and concern is that this will be an indication of what the more significant construction contract proposals are to come in at, putting the project budget at risk.

MTA's construction Contract 1 cost is \$115.8 million, b(4)

2.13 Project Schedule

2.13.1 Significant Milestones

A summary of completed critical SAS Phase 2 project milestones follows:

- The Supplementary EA was completed in July 2018.
- MTA requested an extension to Enter into Engineering; the extension expired the beginning of August 2018.
- A FONSI was issued in November 2018.
- A request to Enter into Engineering was submitted on May 3, 2019.
- A revised request to Enter into Engineering was submitted in September 2019.
- A reevaluation of the Supplementary EA was submitted in April 2020 and approved on August 14, 2020.
- Approval to Enter into Engineering was provided by FTA on January 6, 2022.
- The FFGA was executed on November 4, 2023.
- The majority of project activities were put on a temporary hold in June 2024 due to local funding issues related to Congestion Pricing. This hold lasted for approximately two months for Contract 1.
- Project activities were no longer paused as of November 2024 due to Congestion Pricing being reimplemented.
- *The first major Design-Build construction Contract C2 was awarded on August 29, 2025. MTA submitted an updated integrated project schedule on July 22, 2025, with a data date of May 1, 2025. This schedule is being described by MTA as a Revised Baseline Schedule Update and indicates the project RSD remains November 7, 2031. The previous schedule update was provided March 24, 2025, with a data date of February 3, 2025. The schedule contingency was maintained on the February 3, 2025, schedule update, despite delays, by additional increased construction productivity rates and various logic changes.*

Based on this schedule, all of the milestones according to the FFGA Schedule have been, or will be missed. The estimated milestones, according to this schedule, are reflected in Table 15 with the corresponding differences or delays from the FFGA Schedule. These milestones remained unchanged from the last schedule update.

Table 15 – FFGA Schedule Milestones

		b(4)		

* Based on the MTA SAS Phase 2 integrated project schedule with a data date of April 1, 2025, described by MTA as a b(4)

b(4)

The secondary longest path starts with Contract 1 Block 1656 excavation and utility work such as sewer/drainage, electrical, gas main, and pavement restoration; then goes to Block 1680 and Block 1681 for excavation of gas main, electrical conduits, telecommunication, backfilling, and pavement restoration; then the path goes to Block 1659 for underpinning, excavation, sewer/drainage, gas main, electrical, and backfilling. Then the path switches to Contract 3 with handover of south of 109th Street and Second Avenue (Milestone #3) for utility relocation at Entrance and Ancillary; followed with Buildings demolition, support of excavation for Ancillary 1 and 2 at 106th Street Station; construction of below ground of 106th Street Ancillary 1; followed by Ancillary 1 interior walls level 1 through 7 and roofing; followed by HVAC, and Automatic Temperature Control and Fire Alarm System installation at 106th Street Station. The path then concludes with Contact 4 integrated testing.

2.13.3 90-Day Look Ahead

This section provides a summary of the 90-day look ahead for important activities by FTA, the MTA, and the PMOC.

FTA

- None.

PMOC

- Review updated cost estimate and schedule information upon receipt from MTA.

MTA

- *Issuance of contract C2 NTP.*
- Provide a complete updated EAC.
- *Advertise Contract 3 RFP.*

PMOC Schedule-related Observations, Opinions, and Analysis

- The PMOC recommended the IPS be updated with revised phasing/timeframes of Contract 1, the actual progress of Contract 1, and the delays to the procurement milestones. This has been completed; however, it is further recommended to be updated to include a detailed design schedule with the priority of design activities to expedite the schedule related to Contract 4 that can be tracked monthly. The design schedule has been received from P2P and is under review by MTA.
- The PMOC's opinion is that the probability of achieving the project FFGA RSD is below the P65 level and at risk.

- The project will be further delayed if an NTP for Contract 2 is not issued in August 2025.
- The PMOC recommends that MTA examine ways to expedite the procurement process for Contracts 3 and 4; examine reducing risk transfer to the contractors by having the third-party coordination required for those contracts completed as much as possible prior to award; and examine how completing the design for Contract 4, that would also be incorporated by Contracts 2 and 3, would expedite the schedule. This recommendation was again discussed at the May 5, 2025, FTA Weekly Check-in meeting.
- The PMOC recommends an analysis of the procurement timing/schedule be conducted to analyze design coordination as described in the QMP Section 5.1. MTA should expand on how the interfaces will be clearly identified and coordinated between the contractors very early. This may be appropriate content for the Interface Management Plan or could be in the PMP. Identifying the interfaces and listing the coordination now will enable incorporation into the IPS and construction contracts.
- The observation by the PMOC and FTA of starting/completing major schedule activities and achieving schedule milestones over the next 12 months will be necessary to concur with MTA's ability to achieve the "Revised Baseline" Schedule RSD. The PMOC will report on the adherence to these timeframes for the upcoming reports. Recommended milestones for observation of schedule adherence are as follows:
 - PMC staff on-board and providing support by May 1, 2025 (*achieved*).
 - Contract 2 NTP by the end of August 2025.
 - *Contract 1 Finalize recovery schedule with the contractor by end of September 2025.*
 - b(4)
- The PMOC Schedule Contingency Drawdown Curve is being provided as an attachment to this report on a quarterly basis. The latest PMOC Schedule Contingency Drawdown Curve was provided in May 2025 as Attachment G.

b(4)

b(4)

[REDACTED]

[REDACTED]



2.15 Quality Assurance/Quality Control

There was no project specific Quality Assurance/Quality Control (QA/QC) plan available at the request to Enter into Engineering. The PMOC explained to MTACD, as proactive awareness, that similar findings to the previous PMOC are likely if a project specific QA/QC plan is not developed. This stems from issues regarding quality seen on recent mega projects such as this. More specifically, conducting an agency project specific quality oversight, not just having the Design-Builder perform Quality Management, is considered a best practice. Subsequently, a project specific QMP has been developed and the latest is an updated Version 4 provided on October 28, 2022. The PMOC provided comments and recommendations on the first three plans with the latest in regard to Version 3 on September 26, 2022. These QMP sub-plan reviews were completed by the PMOC under OP 3 Special Tasks. The PMOC quickly reviewed the most recently updated Version 4 in a meeting with MTA on November 1, 2022. The PMOC provided comments and recommendations on this plan as part of the OP 52 Readiness to Execute FFGA report on November 7, 2022.

2.16 Safety and Security

The PMOC received a Safety and Security Management Plan (SSMP), Safety and Security Certification Plan, and System Safety and Reliability Analysis in April 2022. The PMOC reviewed the plans and found the SSMP outdated in many areas. MTA subsequently resubmitted the SSMP and Safety and Security Certification Plan on June 30, 2022. The PMOC provided comments and recommendations on this plan as part of the OP 52 Readiness to Execute FFGA

report on November 7, 2022. An updated SSMP and Safety and Security Certification Plan were submitted January 10, 2023.

The MTA Board approved the 2024 Public Transportation Agency Safety Plan for the Department of Subways at the February 26, 2025 Board meeting.

2.17 Americans with Disabilities Act

In March 2019, MTA provided FTA with a letter as documentation to self-certify “level boarding” at the stations is included in the scope of the project. In addition, a memorandum was submitted in February 2019, that included a brief summary of the proposed new station accessibility features. No issues on this subject have been identified. It is the PMOC’s understanding that all three stations will have elevators and be designed for accessibility. The PMOC discussed inclusion of Americans with Disabilities Act (ADA) requirements in Design-Build contractual language during a call with MTA on September 1, 2020.

2.18 Buy America

The PMOC has discussed inclusion of Buy America requirements in future utility relocation agreements with MTACD. The PMOC also discussed inclusion of Buy America compliance in Design-Build contractual language, and more specifically, in the procurement of traction power and signal systems that complies with 49 Code of Federal Regulations (CFR) Parts 661 and 663. This was discussed during a call with MTA on September 1, 2020. FTA expressed concerns with Buy America compliance related to the CBTC scope of work anticipated to be completed on SAS Phase 1 and Phase 2. MTA continues to work on the Buy America requirements and has potentially four companies to supply the CBTC materials. MTA is still anticipating the CBTC to be part of the Contract 4 scope of work, and the design consultant will be developing the Project Requirements and Design Criteria. MTA confirmed that CBTC is not included in the scope of P2P Modification 29; CBTC is included in Modification 15. MTA stated that CBTC is to be Design-Build delivery. MTA is using a new master technical specification for interoperability. MTA reported that the new specification is not as prescriptive to facilitate more competition. Buy America compliance is still required to be maintained. Modification 15 was put on hold when Contract 4 transitioned to Design-Bid-Build delivery. MTA plans to release Modification 15 in July 2025.

MTA posted links to Important Changes to Buy America Requirements for Federally Funded Contracts (April 2023) through the SAS Phase 2 webpage. Additionally, MTA Design-Build and Design-Bid-Build contracts have been revised to incorporate the new Build America, Buy America Act requirements. *The C2 contractor should follow US cargo preference for international procurements, particularly for TBM machines.*

2.19 Before and After Study Reporting

A Before and After Study Plan has been developed by MTA and is dated March 19, 2020, Version 01. The plan was provided during Entry into Engineering readiness reviews in June 2020. In accordance with the January 6, 2022 Entry into Engineering approval letter, within four months of Entry into Engineering (May 6, 2022), MTA should complete the milestone activities required for the Before and After Study of the Project, namely the documentation, analysis, and archiving of the predicted physical scope, capital cost, transit service levels, operating and maintenance costs, and ridership. MTA should coordinate this work, as it is underway, with the FTA Office of Planning and Environment. The PMOC discussed these requirements with MTA at the January 9, 2024 meeting.

b(4)

[REDACTED]

[REDACTED]

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

3.0 ATTACHMENTS

Attachment A: Abbreviations and Acronyms

ADA	Americans with Disabilities Act	NYCDOT	New York City Department of Transportation
ATC	Alternative Technical Concepts	NYCT	New York City Transit
BFMP	Bus Fleet Management Plan	OP	Oversight Procedure
CBTC	Communications Based Train Control	P2P	Phase 2 Partnership
CFR	Code of Federal Regulations	PMOC	Project Management Oversight Contractor
CIC		PMC	Project Management Consultant
Con-Ed	Consolidated Edison	PMP	Project Management Plan
CPM	Critical Path Method	PRDC	Project Requirements and Design Criteria
EA	Environmental Assessment	PTASP	Public Transportation Agency Safety Plan
EAC	Estimate at Completion	QA/QC	Quality Assurance and Quality Control
ECS	Empire City Subway	QMP	Quality Management Plan
FEIS	Final Environmental Impact Statement	QRM	Quarterly Review Meeting
FFGA	Full Funding Grant Agreement	RAMP	Real Estate Acquisition Management Plan
FONSI	Finding of No Significant Impact	RCMP	Risk and Contingency Management Plan
FTA	Federal Transit Administration	RFMP	Rail Fleet Management Plan
IPS	Integrated Project Schedule	RFP	Request for Proposal
MCC	Management Capacity and Capability	RFQ	Request for Qualifications
MTA	Metropolitan Transportation Authority	RSD	Revenue Service Date
MTACD	MTA Construction and Development	SAS	Second Avenue Subway
N/A	Not Applicable	SCC	Standard Cost Category
NEPA	National Environmental Policy Act of 1969	SSMP	Safety and Security Management Plan
NTP	Notice to Proceed	TBD	To Be Determined
NYC	New York City	TBM	Tunnel Boring Machines
NYCDEP	New York City Department of Environmental Protection	TKD	
NYCDOB	New York City Department of Buildings	YOE	Year of Expenditure

Attachment B: [REDACTED]

[REDACTED]

[REDACTED]				
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

[illegible]

Attachment D: Awarded Contracts (as of August 31, 2025)

b(4)													

Attachment E: Project Milestones/Key Events**Schedule**

Milestone	Date
Date of approval of Entry into Project Development	December 2016
Project Sponsor's Estimated Rev Ops at Entry into Project Development	2027 to 2029
Project Sponsor's Estimated Rev Ops at revised request to Enter into Engineering (September 2019)	September 2027
PMOC's estimated Rev Ops at revised request to Enter into Engineering (September 2019)	January 2029
Date of approval for Entry into Engineering	January 6, 2022
Project Sponsor's Estimated Rev Ops at Risk Assessment Refresh (September 2022)	August 23, 2030
PMOC's Estimated Rev Ops at Risk Assessment Refresh (September 2022) at P65	October 16, 2031
Date of Letter Of No Prejudice	N/A
FFGA (date of execution)	November 4, 2023
Project Sponsor's Estimated Rev Ops at FFGA (November 2023) [Note: This date was revised due to the FFGA execution being delayed by approximately 12 months from the Risk Assessment Refresh due to MTA not completing the requirements for receipt of an FFGA and not beginning major construction procurements]	July 24, 2031
Rev Ops date included in FFGA (November 2023) [Note: This date was revised due to the FFGA execution being delayed by approximately 12 months from the Risk Assessment Refresh due to MTA not completing the requirements for receipt of an FFGA and not beginning major construction procurements]	September 30, 2032
NTP for First Major Contract for Construction (Package C1)	January 2, 2024
NTP for Second Major Contract for Construction (Package C2)	September 2, 2025
NTP for Third Major Contract for Construction	TBD
NTP for Fourth Major Contract for Construction	TBD
60% design submittal	TBD
95% design submittal	TBD
20% construction (based on SCC 10-50)	TBD
50% construction (based on SCC 10-50)	TBD
75% construction (based on SCC 10-50)	TBD
90% construction (based on SCC 10-50)	TBD
Actual Revenue Operations	TBD

Total Project Cost (\$YOE)

Milestone	Cost
Project cost at request to Enter into Engineering (April 2019)	\$6,390,315,000
PMOC cost at request to Enter into Engineering (September 2019) (at P65)	\$6,949,000,000
Project cost at request to Enter into Engineering (revised after PMOC Risk Assessment September 2019)	\$6,948,743,000
Project cost at approval to Enter into Engineering (January 2022) (including finance charges)	\$7,330,042,000
PMOC cost at Risk Assessment Refresh (September 2022) (at P65) (including finance charges)	\$7,625,118,000
Project cost included in executed FFGA (only finance charges were increased from the Risk Assessment Refresh September 2022 cost)	\$7,699,030,840
Project cost at actual Revenue Operations	\$TBD

Attachment F: Project Maps



Figure 1 – Project Aerial View, Manhattan, New York, Second Avenue between 106th and 125th Streets



Figure 2 – Project Map Overall Work Scope