

## **PMOC MONTHLY REPORT**

### **Second Avenue Subway Phase 1 (MTACC-SAS) Project**

Metropolitan Transportation Authority

New York, New York

**Report Period July 1 to July 31, 2017**



PMOC Contract No. DTFT60D1400017

Project No. DC-27-5287, Task Order No. 0002, Work Order No. 05

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Length of time on Project: Five years on Project for Urban Engineers

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### **THIRD PARTY DISCLAIMER**

This report and all subsidiary reports are prepared solely for the Federal Transit Administration (FTA). This report should not be relied upon by any party, except the FTA or the project sponsor, in accordance with the purposes as described below:

For projects funded through the FTA's Full Funding Grant Agreement (FFGA) program, the FTA and its Project Management Oversight Contractor (PMOC) use a risk-based assessment process to review and validate a project sponsor's cost, budget, and schedule. This risk-based assessment process is a tool for analyzing project development and management. Moreover, the assessment process is iterative in nature; any results of an FTA or PMOC risk-based assessment represent a "snapshot in time" for a particular project under the conditions known at that same point in time. The status of any assessment may be altered at any time by new information, changes in circumstances, or further developments in the project, including any specific measures a sponsor may take to mitigate the risks to project costs, budget, and schedule, or the strategy a sponsor may develop for project execution.

Therefore, the information in the monthly reports may change from month to month, based on relevant factors for the current month and/or previous months.

### **REPORT FORMAT AND FOCUS**

This monthly report is submitted in compliance with the terms of the Federal Transit Administration (FTA) Contract No. DTFT60D1400017, Task Order 0002. Its purpose is to provide information and data to assist the FTA as it continually monitors the Project Sponsor's technical capability and capacity to execute a project efficiently and effectively, and hence, whether the Project Sponsor continues to be ready to receive federal funds for further project development.

This report covers the project management activities on the Second Avenue Subway (SAS) Phase 1 Project managed by Metropolitan Transit Authority Capital Construction (MTACC) of New York City (NYC). MTA is the Project Sponsor, financed by the FTA FFGA.

## MONITORING REPORT

### 1.0 PROJECT STATUS

On January 1, 2017, the Second Avenue Subway (SAS) Phase 1 Project began Revenue Service. The project, however, has not reached substantial completion. Corrections of open inspection observations and testing of various system elements are ongoing. Overall project completion is forecasted for November 30, 2017, and is being driven by the Systems contractor's schedule.

Total project expenditures as of July 31, 2017, are \$4.292 billion. This is 96.4% of MTACC's Current Working Budget of \$4.451 billion (exclusive of financing costs). MTACC has committed to a revised cost "Estimate at Completion" (EAC) to determine if additional local funds are required, given the scope of the open inspection observations, ongoing NYCT force account labor, the level of testing still required, the probability of future claims and the exposure from AWOs pending negotiation. Project contingency is reported at negative \$19.9 million.

#### a. Procurement

All contracts required for SAS Phase 1 have been awarded.

#### b. Construction

As of July 31, 2017, there are eight (8) active contracts on the SAS Phase 1 Project, of which two are in the closeout process. Overall construction is 99.4% complete. The status of each contract is as follows:

- **Contract C-26005 (C2A) 96th Street Site Work and Heavy Civil**  
The Contractor achieved Substantial Completion on November 5, 2013. Contract closeout is in process with final payment being processed.
- **Contract C-26010 (C2B) 96th Street Station Civil, Architectural, and MEP**  
Closeout of open observations (discrepancies) and testing of mechanical, electrical, and plumbing systems are ongoing. As of July 24, 2017, there are 1,120 discrepancies that need to be addressed, which is down from 1,370 the previous month. Expenditures show the contractor at 99.4% complete. Substantial Completion as reported at the July 19, 2017, SAS Budget/Schedule Meeting, is still forecasted for August 7, 2017. Final Completion is still forecasted for November 5, 2017.
- **Contract C-26006 (C3) 63rd Street Station Rehabilitation**  
The contractor continued closeout of open observations (discrepancies) and testing of mechanical, electrical, and plumbing systems. As of July 24, 2017, there are 812 discrepancies that need to be addressed, which is up from 809 the previous month. Expenditures show that the contractor is 99.3% complete. Substantial Completion as reported at the July 19, 2017, SAS Budget/Schedule Meeting, is now forecasted for August 25, 2017. Final Completion is now forecasted for November 25, 2017.
- **Contract C-26007 (C4B) 72nd Street Station Cavern Mining and Lining**  
Substantial Completion was achieved on January 14, 2014. Submittal of contract closeout documentation and completion of punchlist items are ongoing.

- **Contract C-26011 (C4C) 72nd Street Station – Station Finishes, MEP, Ancillary Buildings and Entrances**  
 During July 2017, the contractor continued closeout of open observations associated with station finishes and mechanical, electrical, and plumbing systems. As of July 24, 2017, there are 1,676 discrepancies that need to be addressed, which is down from 1,813 the previous month. Expenditures show the contractor at 97.5% complete. Substantial Completion and Final Completion, as reported at the July 19, 2017, SAS Budget/Schedule Meeting, is still forecasted for September 1, 2017, and November 30, 2017, respectively.
- **Contract C-26008 (C5B) 86th Street Station Cavern Mining and Lining**  
 Substantial Completion of all contract work was achieved on December 16, 2014. Contract closeout is ongoing.
- **Contract C-26012 (C5C) 86th Street Station Finishes, MEP Systems, Ancillary Buildings and Entrances**  
 The contractor continued closeout of open observations and testing of mechanical, electrical, and plumbing systems during July 2017. As of July 24, 2017, there are 591 discrepancies that need to be addressed, which is down from 699 the previous month. Expenditures show the contractor at 98.6% complete. Substantial Completion and Final Completion, as reported at the July 19, 2017, SAS Budget/Schedule Meeting, is still forecasted August 31, 2017, and November 29, 2017, respectively.
- **Contract C-26009 (C6) Track, Power, Signals and Communication Systems**  
 The contractor continued closeout of discrepancies, installation of equipment, and integration testing of systems during July 2017. As of July 24, 2017, there 1,529 discrepancies that need to be addressed, which is down from the previous month of 1,626. Expenditures show the contractor at 98.9% complete. Substantial Completion and Final Completion, as reported at the July 19, 2017, SAS Budget/Schedule Meeting, is still forecasted November 20, 2017, and February 18, 2018, respectively.

**c. Quality**

**Quality Assurance and Quality Control (QA/QC)**

Status:

As of July 24, 2017, a total of 5,725 discrepancies are on the “Observations Lists” that need to be addressed on the five contracts that have not achieved Substantial Completion. This is a decrease of 736 discrepancies from the previous month, when there were 6,461 (adjusted).

The status of the Manuals and “As-Built-Drawings” as of July 31, 2017 is as follows:

**Preliminary O&M Manuals**

	Stations	Systems
Required	185	65
Submitted	185 (100%)	24 (37.0%)
Approved	139 (75.0%)	15 (23.0%)
Returned R&R	14 (8.0%)	7 (11.0%)
Under Review (NYCT)	32 (17.0%)	2 (3.0%)
To be Submitted	0	41 (623.0%)

**Training Manuals**

	Stations	Systems
Required	115	49
Submitted	110 (96.0%)	22 (45.0%)
Approved	59 (51.0%)	16 (33.0%)
Returned R&R	9 (8.0%)	6 (12.0%)
Under Review (NYCT)	42 (37.0%)	0 (0.0%)
To be Submitted	5 (4.0%)	27 (55.0%)

**As-Built-Drawings**

	Stations	Systems
Required	7,759	4,338
Submitted	7,810 (98.0%)	857 (20.0%)
Reviewed	3,786 (48.0%)	742 (17.0%)
Approved	1,699 (21.0%)	679 (16.0%)
Returned R&R	2,003 (25.0%)	63 (1.0 %)
Under Review (NYCT)	4,023 (51.0%)	115 (3.0%)
To be Submitted	148 (2.0%)	3,481 (80.0%)

Observations:

Quality Assurance/Quality Control support is ongoing on the Second Avenue Subway Phase 1 project with efforts directed toward the resolution of discrepancies on the “Observations Lists”, performing inspections of base and AWO work, resolution of nonconforming work, and review of preliminary O&M Manuals, Training Manuals, and “As-Built-Drawings”.

Concerns and Recommendations:

The number of discrepancies still on the “Observation List” is a concern to the PMOC. The time required to address the discrepancies is taking longer because of the system being operational and the limited availability of contractor personnel.

The percentage of the approved manuals and as built drawings is also a concern to the PMOC. The percent approved of each does not appear to support the current substantial completion schedule. MTACC’s Project Procedure No. CO.10 (Beneficial Use, Substantial Completion, and Final Completion) suggests that these items must be addressed before project completion can occur with subsequent turnover to the user group(s). The PMOC recommends that added effort be directed toward the completion of the manuals and as built drawings.

**d. Readiness for Revenue Operation**

Status:

The SAS Phase 1 Project opened for Revenue Operation on January 1, 2017. At that time, substantial completion had not been achieved for the four station contractors and the system contractor due to unfinished work and various workmanship discrepancies. Resolution of the discrepancies is ongoing and is being tracked on an “Observation List”. As of July 24, 2017, there are 5,725 open items on the “Observation List”, which is down from the previous month of 6,461. See Section 1.b for forecasted substantial completion dates. Approvals of the required manuals and as built drawings is ongoing. See Section 1.c for details.

Observations:

Resolution of the code compliance issues is taking longer than anticipated, which has resulted in mitigation measures being extended.

Concerns and Recommendations:

The PMOC recommends that the MTA Code Compliance Office address the issue that not all the “RSD+60” observations were closed by the specified date.

## 2.0 SCHEDULE DATA

### Status:

The table below reflects SAS Phase 1 schedule data presented at the July 19, 2017, SAS Budget/Schedule Meeting.

Road Map for Project and Grant Closeout					
Description of Tasks	63rd Street	72nd Street	86th Street	96th Street	Systems
Required Prior to Substantial Completion					
1. Outline of Proposed Schedule for submission of administrative items	8/25/2017	9/1/2017	8/31/2017	8/7/2017	11/20/2017
2. Completion of AWOs	8/25/2017	9/1/2017	8/31/2017	8/7/2017	11/20/2017
Substantial Completion	8/25/2017	9/1/2017	8/31/2017	8/7/2017	11/20/2017
3. Final SAS Certification	<-----11/6/2017----->				
4. Substantial Completion by Contract	8/25/2017	9/1/2017	8/31/2017	8/7/2017	11/20/2017
5. Final Completion /Identify Closeout Schedule	11/24/2017*	11/30/2017*	11/29/2017*	11/5/2017*	2/18/2018*
6. Grant closeout	<-----5/19/2018**----->				

\*Plus 3 months from Substantial Completion per contract

\*\*Plus 90 days from System Contract closeout

### Observations:

Correction of discrepancies while the system is operational is requiring more time than anticipated and has resulted in changes in the substantial completion dates. See construction status for each station and system contractor under Section 1. Construction.

### Concerns and Recommendation:

The PMOC recommends that coordination/progress meetings continue to be held on a regular basis so manpower adjustments can be made to minimize impacts on the schedule.



### 3.0 COST DATA

#### Status:

Total project expenditures as of July 31, 2017, is \$4.292 billion. This is 96.4% of MTACC's \$4.451 billion Current Working Budget (exclusive of financing costs).

Construction expenditures as of July 31, 2017, are \$2.657 billion. This is 99.4% of the \$2.674 billion construction budget. The completion status of each individual construction contract is as follows:

- C26002 (C1 Tunnel Boring) – 100%;
- C26005 (C2A 96th Street Station) – 100%;
- C26010 (C2B 96th Street Station) – 99.4%;
- C26013 (C5A 86th Street Station) – 100%;
- C26008 (C5B 86th Street Station) – 100%;
- C26012 (C5C 86th Street Station) – 98.6%;
- C26006 (C3 63rd Street Station) – 99.3%;
- C26007 (C4B 72nd Street Station) – 100%;
- C26011 (C4C 72nd Street Station) – 97.5%; and,
- C26009 (C6 Systems) – 98.9%

Soft Cost expenditures, as of July 31, 2017, are \$1.285 billion, which is 93.4% of the \$1.376 billion budget.

Project contingency as of July 31, 2017, is as follows:

AWO Budget (Approved Contingency)	\$393,198,000
<u>Executive Reserve</u>	+ \$3,284,000 (unallocated see Table 5)
Total Contingency	\$396,482,000
<u>Contingency Spent (thru 7/31/17)</u>	-\$348,506,000
Contingency (balance)	\$47,976,000
<u>Retroactive AWO Payments</u>	+\$3,992,000
Contingency Remaining	\$51,968,000 (see Table 5)
<u>AWOs (Negotiated Pending Approval)</u>	-\$21,616,000
Available Contingency	\$30,352,000
<u>AWOs (Pending Negotiation)</u>	-\$50,255,000
MTACC Remaining Contingency	-\$19,903,000

#### Observations:

A revised cost Estimate at Completion (EAC) should be prepared to determine the need for additional local funds given the scope of the discrepancies on the "Observation List", the level of testing still required, probability of future claims, and ongoing need for project support personnel.

#### Concerns and Recommendation:

The PMOC recommends expediting the completion of the revised EAC. If additional local funds are required, the process to allocate the local funds identified in the amended FFGA should be initiated.

#### 4.0 RISK MANAGEMENT

Status:

At this stage of the project, risks are well understood by the SAS Project Team. Mitigations implemented to allow the start of revenue service are ongoing and continue to be monitored. See item 4 below.

Observation and Analysis:

Risks involving MTACC’s schedule acceleration initiative can be classified as either management and organizational risk or technical and coordination risk. Major risks within each of these categories are summarized as follows:

<b>Management and Organizational Risks</b>	
<b>Risk</b>	<b>Status</b>
1. MTACC’s ability to implement its schedule acceleration program through compression of construction schedules.	Revenue Service began on January 1, 2017, without the station and systems contractors achieving substantial completion. Project Control efforts subsequently focused on tracking the major activities associated with achieving substantial completion. At the April 27, 2017, Budget/Schedule Program Meeting, a sheet titled Road Map for Project and Grant Completion was presented as the means which substantial completion status would be provided. See Section 2 of this report for current substantial completion and final completion dates.
2. Design and scope changes requested by NYCT during the late stages of construction. NYCT has agreed that changes not related to safe operation of the railroad and station facilities will be deferred until after the start of Revenue Service.	The AWO process is being utilized to track requested design changes. During July 2017, there were no requested design changes. Efforts are underway to resolve the cost of implementing design changes requested by the user group (NYCT) which are not part of the original scope.
3. Availability of NYCT staff to support testing, commissioning, and final acceptance of work performed by SAS contractors.	Ongoing NYCT support is being provided subsequent to Revenue Service. This is being driven by efforts to resolve discrepancies on the “Observation List”, and completion of AWO and base contract work. NYCT force account budget has been exceeded and additional funds are required.
4. MTA code compliance reviews. Past experience suggests that risks involve delayed inspections, unrealistic code interpretation, and disregard for project operational goals.	Revenue Service commenced on January 1, 2017, with unresolved code compliance issues. MTACC failed to resolve all the code compliance issues documented in NYCT’s Certification for Temporary Certificate of Occupancy Memorandum dated December 29, 2016. Subsequently, the

<b>Management and Organizational Risks</b>	
<b>Risk</b>	<b>Status</b>
	Office of Code Compliance reissued the certification with the revised stipulation that all RSD+60 critical observations had to be resolved by April 15, 2017. At the end of April 2017, there were still open RSD+60 observations. As of July 24, 2017, there are still 1,428 open code compliance observations. Mitigation measures are ongoing until the code compliance discrepancies are resolved. The MTA Code Compliance Office should address the issue that not all the “RSD+60/safety” observations are closed.
<b>Technical and Coordination Risks</b>	
<b>Risk</b>	<b>Status</b>
1. Critical communication systems: fire alarm system, police radio installation, installation, and startup at all stations.	Adequate testing of all the interfaces to the fire alarm system continues as a major risk. The Systems Contractor’s schedule shows substantial completion to be achieved on November 20, 2017.

## 5.0 ELPEP

The SAS Project Team has implemented the principles and requirements embodied in the ELPEP. The procedural changes triggered by the ELPEP have become an integral part of the management of the project and have given the FTA/PMOC greater insight into the risk, cost, and schedule elements of the project. The project met the \$45 million ELPEP minimum available contingency requirement at the 100% Bid and 85% Constructed hold points.

## 6.0 SAFETY AND SECURITY

Each construction contractor continued implementation of the Safety Requirements as specified in Section 01 11 50 of the General Requirements.

As of June 30, 2017, a total of 15,145,684 construction hours have been logged on the project with 105 lost time and 197 recordable incidents documented. The total hours and incidents equates to a Lost Time Rate (LTR) of 1.39 and a Recordable Rate (REC) of 3.99. The LTR is below and the REC is above the US Bureau of Labor Statistics (BLS) national rates (Heavy and Civil construction) of 1.8 and 3.2 respectively.

**Safety and Security Certification:** Safety and Security Certification Requirements are specified in Section 01 77 12 of the General Requirements for each station and system contract. The certifiable elements of the SAS project have been identified and the Certifiable Items List (CIL) has been established and documented on checklists. The test reports that serve as the “Bodies of Evidence” for the verification of the certifiable items are not being issued in a timely manner. The delay in the issuance of the test reports caused the Systems Safety Certification Committee to deviate from the certification process. In December 2016, the SAS Systems Safety

Certification Committee issued an Interim Acceptance Certificate of Conformance that allowed all SAS stations to open for revenue service on an interim basis until final system integration can be substantiated. Full certification for each station will be granted by the SAS Systems Safety Certification Committee upon evidentiary review of system integration provided by the Systems contractor's management team, C-26009. Safety Certification is ongoing with the accumulation of test reports and other bodies of evidence. Final certification is anticipated on November 6, 2017.

## **7.0 ISSUES AND RECOMMENDATIONS**

**Schedule:** Correction of discrepancies while the system is operational will require considerably more time. GOs for track outages and track foul time will be limited and of shorter durations, thus limiting what can be accomplished. Coordination/Progress meetings should be held on a regular basis so adjustments can be made to minimize the impacts on the schedule

**Technical Issues:** Design flaws have become apparent and have resulted in the need for mitigation actions. Errors and omissions in the design are being tracked by the project team and MTACC is considering seeking compensation from the designer. NYCT request for design features which are not in the station contractor's contract are being evaluated with the expectation that NYCT will fund the addition features.

**Systems Testing:** Delays in completing the installation of equipment have had a ripple effect on the overall integration and test program. Data presented at the July 19, 2017, SAS Phase 1 Budget/Schedule Monthly meeting still shows integration testing ongoing until November 20, 2017.

Volume 2 of the Facilities System Test Program identifies the System Acceptance Phase (SAP) as the period after substantial completion (completion of FAT, FIAT, SIST and FSIT), when systems and subsystems will be operated to demonstrate that all interfaces and systems are functioning as designed and intended. The Road Map for Project and Grant Closeout presented at the April 27, 2017, Budget/Schedule Progress Meeting did not reflect the SAP. MTACC has stated that an addendum to the Facilities System Test Program (FSTP) will be issued. However, to date, the PMOC has not observed that the FSTP addendum has been issued or implemented.

**Compliance Inspections:** MTACC's commitment to expedite the Compliance Inspection process is ongoing. Completion of work is being impacted because trains are operational.

**Safety Certification:** The test reports that serve as the "Bodies of Evidence" for the verification of the certifiable items were not issued in a timely manner and this caused the Systems Safety Certification Committee to deviate from the certification process.

The SAS Safety Certification Committee agreed to open the Second Avenue Subway stations for revenue service on an interim basis until final system integration can be substantiated. An Interim Acceptance Certificate of Conformance was issued on December 28, 2016. The PMOC notes that one committee member did not sign the Certificate of Conformance. The certification stated that "risk mitigation methods will be strictly enforced providing an equivalent efficacy of those final systems until full certification can be achieved. Full certification for each station will be granted by the SAS Certification Committee upon evidentiary review of system integration provided by the System C-26009 construction management team".

The PMOC expressed its concern that the certification process had been circumvented. Objective evidence should have been presented as verification that the Certifiable Items List

associated with each certifiable element at each station had been completed. Two hundred and seventy-two (272) of the required 300 test reports have now been received. Safety and Security Certification is ongoing and is projected to be completed by November 6, 2017.

**Financial:** As of July 31, 2017, \$4.292 billion (96.4%) of the MTACC's Current Working Budget of \$4.451 billion (exclusive of financing costs), has been expended. Project contingency is projected at negative \$19.9 million as noted at the July 2017 SAS Phase 1 Budget/Schedule monthly meeting. MTACC committed to revise the cost Estimate at Completion (EAC) in order to address the funding issue, given the scope of the open inspection observations, the level of testing still required, pending AWOs, and the probability of future claims. As of July 31, 2017, the EAC has not been revised and provided to the FTA/PMOC. If additional local funds are required, the process to allocate the local funds identified in the amended FFGA should be initiated.

## **APPENDIX A – ACRONYMS**

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ARRA	American Recovery and Reinvestment Act
AWO	Additional Work Order
BLS	Bureau of Labor Statistics
CBDS	Computer Based Dispatch System
CBH	Circuit Breaker House
CCM	Consultant Construction Manager
CCTV	Closed Circuit Television
CD	Calendar Days
CIL	Certifiable Items List
CMP	Cost Management Plan
CPRB	Capital Program Review Board
CSSR	Contact Status Summary Report
CWB	Current Working Budget
CY	Cubic Yards
DCB	Detailed Cost Breakdown
EAC	Estimate at Completion
EBCS	Emergency Booth Communication System
ELPEP	Enterprise Level Project Execution Plan
FAS	Fire Alarm System
FIAT	Field Installation Acceptance Test
FFGA	Full Funding Grant Agreement
FSIT	Final Systems Integrated Testing
FSTP	Facilities System Test Program
FTA	Federal Transit Administration
GO	General Orders
IAC	Intrusion Access Control
IPS	Integrated Project Schedule
LAN	Local Area Network
LTR	Lost Time Rate
MO	Month
MPT	Maintenance and Protection of Traffic

MTA	Metropolitan Transportation Authority
MTACC	Metropolitan Transportation Authority – Capital Construction
N/A	Not Applicable
NYCT	New York City Transit
NYSPTSB	New York State Public Transportation Safety Board
OSS	NYCT Office of System Safety
PACIS	Public Address Customer Information Screens
PEP	Project Execution Plan
PMOC	Project Management Oversight Contractor (Urban Engineers)
PMP	Project Management Plan
PQM	Project Quality Manual
QA	Quality Assurance
RAMP	Real Estate Acquisition Management Plan
REC	Recordable Rate
RMCP	Risk Mitigation Capacity Plan
RMP	Risk Management Plan
RMS	Remote Monitoring System
ROD	Revenue Operations Date
ROW	Right of Way
RSD	Revenue Service Date
SAS	Second Avenue Subway
SCC	Standard Cost Category
SIST	Simulated Integrated System Testing
SMP	Schedule Management Plan
SSCC	Safety and Security Certification Committee
SSOA	State Safety Oversight Agency
SSPP	System Safety Program Plan
TBD	To Be Determined
TCC	Technical Capacity and Capability
TPSS	Traction Power Substation
TSSM	Tunnel Station Smoke Management
TWG	Technical Working Group
WAN	Wide Area Network (WAN)

WBS

Work Breakdown Structure

WD

Work Days



## APPENDIX B – TABLES

**Table 1 - Summary of Schedule Dates**

	FFGA (March 2015)	Forecast Completion	
		Project Sponsor	PMOC
Begin Construction	January 1, 2007	March 20, 2007A	March 20, 2007A
Construction Complete	August, 2016	November 20, 2017*	October 2017
Revenue Service	February 28, 2018	January 1, 2017A	February 2018

\* Substantial Completion revised to reflect substantial completion of the Systems Contractor.

**Table 2 - Project Budget/Cost** 

	FFGA			FFGA Amend	MTA Current Working Budget (CWB)		Expenditures as of July 31, 2017	
	\$ Millions	% of Total	Obligated (\$ Millions)	3/17/2015	\$ Millions	% of Total	\$ Millions	% of Total
Grand Total Cost	4,866.614	100	4,572.942	5,574.614	5,267.614	100	4,292.113	81.48
Financing Cost	816.614	16.78		816.614	816.614	15.50	(N.A.)	(N.A.)
Total Project Cost	4,050.000	83.22	4,572.942	4,758.000	4,451.00	84.50	4,292.113	81.48
Total Federal	1,350.693	27.75	1,063.942	1,373.893*	1,350.693	24.60	1,310.407	24.88
Total FTA share	1,300.000	96.25	990.049	1,300.000	1,300.000	23.68	1,236.514	23.47
5309 New Starts share	1,300.000	100	990.049	1,300.000	1,300.000	23.68	1,236.514	23.47
Total FHWA share	50.693	3.75	73.893	73.893	50.693	0.96	73.893	1.40
CMAQ	48.233	95.15	71.433	71.433	48.233	0.88	71.433	1.35
Special Highway Appropriation	2.460	4.85	2.460	2.460	2.460	0.04	2.460	0.05
Total Local share	2,699.307	55.47	3,509.000**	3,384.107	3,509.000 **	63.92	2,981.706	56.60
State share	450.000	16.67	100.000		450.000	8.20		
Agency share	2,249.307	83.33	1,145.782		3,059.000	55.72		
City share	0	0			0	0		

\* Obligated and expended amounts obtained from the FTA's Transit Award Management System (TrAMS) and MTACC's Grant Management Department.

\*\* Current MTA Board approved budget.

**Table 3 - Estimate at Completion**

<b>Category</b>	<b>Current Working Budget</b>	<b>EAC Forecast As of September 2016</b>
<b>Total Construction</b>	\$2,674,814,299	\$3,050,065,727
<b>Engineering Services Subtotal</b>	\$622,862,000	\$690,022,317
<b>Third Party Expenses</b>	\$554,086,273	\$556,586,000
<b>TA Expenses</b>	\$131,160,085	\$141,514,683
<b>Contingency</b>	\$468,077,343	\$0
<b>Total</b>	<b>\$4,451,000,000</b>	<b>\$4,438,188,727</b>

EAC is being updated to reflect current project status

**Table 4 - Allocation of Current Working Budget to Standard Cost Categories**

<b>Std. Cost Category (SCC)</b>	<b>Description</b>	<b>FFGA (January 2008)</b>	<b>FFGA Amended (March, 2015)</b>	<b>MTA's Current Working Budget (December 31, 2016)</b>
10	Guideway & Track Elements	\$612,404,000	\$195,346,781	\$189,310,484
20	Stations, Stops, Terminals, Intermodal	\$1,092,836,000	\$1,666,605,679	\$1,471,571,389
30	Support Facilities	\$0	\$0	\$0
40	Site Work & Special Conditions	\$276,229,000	\$793,118,232	\$880,704,398
50	Systems	\$322,707,000	\$250,379,966	\$212,891,015
60	ROW, Land, Existing Improvements	\$240,960,000	\$281,500,000	\$281,500,000
70	Vehicles	\$152,999,000	\$0	\$0
80	Professional Services	\$796,311,000	\$1,026,608,168	\$1,388,496,979
90	Unallocated Contingency	\$555,554,000	\$544,441,174	\$26,525,735
<b>Subtotal</b>		<b>\$4,050,000,000</b>	<b>\$4,758,000,000</b>	<b>\$4,451,000,000</b>
<b>Financing Cost</b>		<b>\$816,614,000</b>	<b>\$816,614,000</b>	<b>\$816,614,000</b>
<b>Total Project</b>		<b>\$4,866,614,000</b>	<b>\$5,574,614,000</b>	<b>\$5,267,614,000</b>

Note: Table updated to reflect latest allocations by MTACC (4<sup>th</sup> Quarter 2016)

**Table 5 - Core Accountability Items**

Project Status:		Original at FFGA	Current*	ELPEP**
<b>Cost</b>	Cost Estimate	\$4,050 million	\$4,451 million (exclusive of financing)	\$4,980 million
<b>Contingency</b>	Unallocated Contingency (Management Reserve)	\$555.554 million	\$3.3 million (As of July 31, 2017)	\$45 million
	Total Remaining Contingency (Allocated plus Unallocated)	\$555.554 million	\$51.9 (As of July 31, 2017)	\$45 million
<b>Schedule</b>	Revenue Service Date	June 30, 2014	January 1, 2017A	February 28, 2018
See Section 3.0 for detail breakdown of Project Contingency				
<b>Total Project Percent Complete</b>	Based on Expenditures		96.4%	
	Based on Earned Value		N/A	
Major Issue	Status	Comments		
<b>Substantial and Project Completion</b>	Open	Correction of discrepancies while the system is operational will require considerably more time. GOs for track outages and foul time will be limited and of shorter durations, thus limiting what can be accomplished. Coordination/Progress meetings are being held on a regular basis so adjustments can be made to minimize the impacts on the schedule See Section 2 for substantial completion and project completion dates.		
<b>Construction Quality</b>	Open	On January 1, 2017, the Second Avenue Subway (SAS) Phase 1 Project began Revenue Service. The service began with a number of open items which are documented in NYCT's Certification for Temporary Certificate of Occupancy Memorandum dated December 29, 2016. The memorandum stipulates that the open items must be completed within 60 days of revenue service i.e., March 1, 2017. All of the Revenue Service (RSD) +60 days code compliance issues were not resolved by March 1, 2017. Subsequently, Code Compliance reissued the temporary certificates with the revised stipulation that the outstanding issues had to be resolved by April 15, 2017. As of July 31, 2017, there are still 5,725 discrepancies on the "Observation List", of which 1,426 are code compliance related.		
<b>Date of Next Quarterly Meeting:</b>		TBD		

\* MTACC's Current Working Budget

\*\* Enterprise Level Project Execution Plan (ELPEP), reflecting median level of risk mitigation

Financial data based upon MTACC reporting through 02/28/2017.