## PMOC MONTHLY REPORT

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

Metropolitan Transportation Authority
New York, New York

Report Period June 1 to June 30, 2017



PMOC Contract No. DTFT60D1400017 Project No. DC-27-5287, Task Order No. 0002, Work Order No. 04

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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.

MTACC-SAS

### 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 June 30, 2017, are \$4.286 billion. This is 96.3% 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, and the probability of future claims. Project contingency has been consumed and is reported at negative \$11.8 million.

## a. Procurement

All contracts required for SAS Phase 1 have been awarded.

#### b. Construction

Forecasted Substantial and Project Completion dates are in the contract statuses below. These dates were presented at the June 23, 2017, monthly MTACC Budget/Schedule meeting with the FTA/PMOC.

As of June 30, 2017, there are eight (8) active contracts on the SAS Phase 1 Project, of which two are in the closeout process. Overall construction is 99.3% 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 June 26, 2017, there are 1,370 discrepancies that need to be addressed, which is down from 1,549 the previous month. Expenditures show the contractor at 99.4% complete. Substantial Completion as reported at the June 21, 2017, SAS Budget/Schedule Meeting, is now forecasted for August 7, 2017. Final Completion is now 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 June 26, 2017, there are 807 discrepancies that need to be addressed, which is down from 825 the previous month. Expenditures show that the contractor is 99.1% complete. Substantial Completion as reported at the June 21, 2017, SAS Budget/Schedule Meeting, is now forecasted for July 15, 2017. Final Completion is still forecasted for September 28, 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 June 2017, the contractor continued closeout of open observations associated with station finishes, and mechanical, electrical, and plumbing systems. As of June 26, 2017, there are 1,813 discrepancies that need to be addressed, which is down from 2,016 the previous month. Expenditures show the contractor at 97.4% complete. Substantial Completion and Final Completion, as reported at
- 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.

1, 2017, and November 30, 2017, respectively.

the June 21, 2017, SAS Budget/Schedule Meeting, is still forecasted for September

- 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 June 2017. As of June 26, 2017, there are 707 discrepancies that need to be addressed, which is an increase from 699 the previous month. Expenditures show the contractor at 98.2% complete. Substantial Completion, as reported at the June 21, 2017, SAS Budget/Schedule Meeting, is now forecasted for August 31, 2017. Final completion is now forecasted for November 29, 2017.
- Contract C-26009 (C6) Track, Power, Signals and Communication Systems
  The contractor continued closeout of discrepancies, installation of equipment, and
  integration testing of communication systems during June 2017. As of June 26,
  2017, the number of open discrepancies decreased to 1,764 from the previous
  month of 1,995. Expenditures show the contractor at 98.9% complete. Substantial
  Completion, as reported at the June 21, 2017, SAS Budget/Schedule Meeting, is
  still forecasted for November 20, 2017. Final completion is forecasted for
  February 18, 2018.

## c. Quality

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

#### Status:

As of June 26, 2017, a total of 6,461 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 803 discrepancies from the previous month, when there were 7,264 (adjusted).

The status of the Manuals and "As-Built-Drawings" as of June 30, 2016 is as follows:

## Preliminary O&M Manuals

	Stations	Systems
Required	186	65
Submitted	186 (100%)	25 (38.0%)
Approved	131 (70.0%)	15 (23.0%)
Returned R&R	17 (9.0%)	7 (11.0%)
Under Review (NYCT)	38 (20.0%)	3 (5.0%)
To be Submitted	0	40 (62.0%)

## **Training Manuals**

	Stations	Systems
Required	115	54
Submitted	100 (87.0%)	20 (37.0%)
Approved	44 (38.0%)	15 (28.0%)
Returned R&R	8 (7.0%)	5 (9.0%)
Under Review (NYCT)	48 (46.0%)	0 (0.0%)
To be Submitted	15 (13.0%)	34 (63.0%)

### As-Built-Drawings

	Stations	Systems
Required	7,725	4,338
Submitted	7,533 (98.0%)	857 (20.0%)
Reviewed	3,711 (48.0%)	742 (17.0%)
Approved	1,451 (19.0%)	679 (16.0%)
Returned R&R	2,240 (29.0%)	63 (1.0 %)
Under Review (NYCT)	3,842 (50.0%)	115 (3.0%)
To be Submitted	192 (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, and reviewing of preliminary O&M Manuals, Training Manuals, and "As-Built-Drawings".

### Concerns and Recommendations:

The 6,461 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 availability of contractor personnel. As a result substantial completion dates are being impacted. 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 a reevaluation of all forecasted substantial completion dates.

# 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 June 26, 2017, there are 6,461 open items on the "Observation List", which is down from the previous month of 7,264. See Section 1.b for forecasted substantial completion dates.

## Observations:

Resolution of the code compliance issues is taking longer than anticipated and has subsequently affected the substantial completion of the station and systems contracts.

## **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 June 21, 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	7/15/2017	9/1/2017	8/31/2017	8/7/2017	11/20/2017		
2. Completion of AWOs	7/15/2017	7/31/2017	8/31/2017	8/7/2017	11/20/2017		
Substantial Completion	7/15/2017	9/1/2017	8/31/2017	8/7/2017	11/20/2017		
3. Final SAS Certification	<>						
4. Substantial Completion by Contract	7/15/2017	9/1/2017	8/31/2017	8/7/2017	11/20/2017		
5. Final Completion /Identify Closeout Schedule	10/16/2017*	11/30/2017*	11/29/2017*	11/5/2017*	2/18/2018*		
6. Grant closeout	<>						

<sup>\*</sup>Plus 3 months from Substantial Completion per contract

## Observations:

Correction of discrepancies while the system is operational is requiring more time than anticipated and is reflected in slippage in the substantial completion dates for the 63rd, 86th and 96th Street Stations. Substantial Completion for the 63rd Street Station slipped from June 30, 2017 to July 15, 2017, 86th Street Station slipped from June 30, 2017, to August 31, 2017, and the 96th Street Station slipped from June 30, 2017, to August 7, 2017.

### 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.

<sup>\*\*</sup>Plus 90 days from System Contract closeout

### 3.0 COST DATA

### Status:

Total project expenditure as of June 30, 2017, is \$4.286 billion. This is 96.3% of MTACC's \$4.451 billion Current Working Budget (exclusive of financing costs).

Construction expenditures as of June 30, 2017, are \$2.656 billion. This is 99.3% 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) 98.2%;
- C26006 (C3 63rd Street Station) 99.1%
- C26007 (C4B 72nd Street Station) 100%;
- C26011 (C4C 72nd Street Station) 97.4% and,
- C26009 (C6 Systems) 98.9%

Soft Cost expenditures, as of June 30, 2017, are \$1.281billion, which is 93.1% of the \$1.376 billion budget.

Project contingency as of June 30, 2017, is as follows:

AWO Budget (Approved Contingency)	\$373,743,000
Executive Reserve	\$26,349,000
Total Contingency	\$400,092,000
Contingency Spent (thru 6/30/17)	\$348,117,000
Retroactive AWO Payments	(\$5,637,000)
Contingency Remaining	\$57,612,000
AWOs (Negotiated Pending Approval)	\$19,464,000
Available Contingency	\$38,148,000
AWOs (Pending Negotiation)	\$49,963,000
MTACC Remaining Contingency	(\$11,815,000)

## 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:

	Management and Organizational Risks				
	Risk	Status			
1.	MTACC's ability to implement its schedule acceleration program through compression of construction schedules.	Revenue Service began on January 1, 2017; however, equipment installation and integration and acceptance testing are ongoing. Net point Schedules issued in January 2017 were replaced with Excel Spreadsheets in February 2017. The Excel Schedule Spreadsheets were updated in March 2017. Numerous activities were not statused. Schedule updates were a subject of discussion at the April 27, 2017, Budget/Schedule Program Meeting. Updated Excel Schedule Spreadsheets were not available for the April 2017 Budget/Schedule meeting. Revised dates were presented via a sheet titled Road Map for Project and Grant Completion (See Section 2 of this report for 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 June 2017, there were no requested design changes. Cost associated with approved design changes should be reflected in the revised EAC.			
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.			

	Management and Organizational Risks					
	Risk	Status				
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 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 June 26, 2017, there are still 1,688 open code compliance observations. Mitigation measures should be continued 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.				
	Technical and Coo	ordination Risks				
	Risk	Status				
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 May 31, 2017, a total of 15,115,117 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 4.00. 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. During May 2017, there was one recordable incident which resulted in a slight rise in the rate from 3.99 to 4.00.

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

<u>Technical Issues</u>: 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 June 21, 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.

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

<u>Safety Certification</u>: 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 opening 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. Over the last two months, efforts to obtain the test reports have been successful. 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.

<u>Financial</u>: As of June 30, 2017, \$4.286 billion (96.3%) of the MTACC's Current Working Budget of \$4.451 billion (exclusive of financing costs), has been expended. Project contingency has been consumed and a negative \$11.8 million balance was noted at the June 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 June 30, 2017, the EAC has not yet 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

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

**Table 1 - Summary of Schedule Dates** 

	FFGA	Forecast Completion		
	(March 2015)	Project Sponsor	PMOC	
Begin Construction	January 1, 2007	March 20, 2007A	March 20, 2007A	
Construction Complete	August, 2016	August 31, 2017*	October 2017	
Revenue Service	February 28, 2018	January 1, 2017A	February 2018	

 $<sup>* \</sup> Substantial \ Completion \ revised \ to \ reflect \ Schedule \ Update \ dated \ February \ 22, 2017.$ 





	FFGA		FFGA Amend	- Working Budget		Expenditures as of June 30, 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	4,286.294	81.37
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	4,286.294	81.37
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	2,975.887	56.49
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 t the FTA's Transit Award Management System (TrAMS) and MTACC's Grant Management Department.

Current MTA Board approved budget.

**Table 3 - Estimate at Completion** 

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

EAC is being updated to reflect current project status

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

Std. Cost Category (SCC)	Description	FFGA (January 2008)	FFGA Amended (March, 2015)	MTA's Current Working Budget (December 31, 2016)
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
Subtotal		\$4,050,000,000	\$4,758,000,000	\$4,451,000,000
Financing Cost		\$816,614,000	\$816,614,000	\$816,614,000
Total Project		\$4,866,614,000	\$5,574,614,000	\$5,267,614,000

Note: Table updated to reflect latest allocations by MTACC ( $4^{th}$  Quarter 2016)

**Table 5 - Core Accountability Items** 

D : 4 G/4							
Project Status:			Orig	ginal at FFGA	Current*	ELPEP**	
Cost	Cost Estimate		\$4	,050 million	\$4,451 million (exclusive of financing)	\$4,980 million	
Contingency	Unallocated Contingency		\$55	5.554 million	\$26.3 million (As of June 30, 2017)	\$45 million	
	Total Contingency (Allocated plus Unallocated)		\$555.554 million		\$57.6 million (As of June 30, 2017)	\$45 million	
Schedule	Revenue Service Date		Ju	ne 30, 2014	January 1, 2017A	February 28, 2018	
See Section 3.0 for de	etail b	reakdown of Projec	ct Conti	ngency			
Total Project Percent Complete	Based on Expenditures			96.3%			
	Based on Earned Value		N/A				
Major Issue		Status		Comments			
Substantial and Project Completion		Open	considerably mo limited and of accomplished. Coordination/Pro		iscrepancies while the system is operational will require ore time. GOs for track outages and foul time will be of shorter durations, thus limiting what can be rogress meetings are being held on a regular basis so a be made to minimize the impacts on the schedule		
Construction Quality		Open		began Revenue items which ar Certificate of The memorand within 60 days Revenue Service	2017, the Second Avenue Subway (SAS) Phase 1 Project e Service. The service began with a number of open the documented in NYCT's Certification for Temporary Occupancy Memorandum dated December 29, 2016. The stipulates that the open items must be completed as of revenue service i.e., March 1, 2017. All of the ce (RSD) +60 days code compliance issues were not surch 1, 2017. Subsequently, Code Compliance reissued certificates with the revised stipulation that the ues had to be resolved by April 15, 2017. As of June are still 6,461 discrepancies on the "Observation List", were code compliance related.		
				outstanding issues 30, 2017, there	ues had to be resolved by A are still 6,461 discrepancies	pril 15, 2017. As of June on the "Observation List",	

<sup>\*</sup> 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.