# PMOC MONTHLY REPORT

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

Metropolitan Transportation Authority New York, New York

Report Period August 1 to August 31, 2017



PMOC Contract No. DTFT60D1400017 Project No. DC-27-5287, Task Order No. 0002, Work Order No. 05

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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 August 31, 2017, are \$4.316 billion. This is 97.0% of MTACC's Current Working Budget of \$4.451 billion (exclusive of financing costs) and below the funding commitment in the FTA Full Funding Grant Agreement of \$5.574 billion. 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 \$22.9 million.

#### a. Procurement

All contracts required for SAS Phase 1 have been awarded.

#### b. Construction

As of August 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 99.5% 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 August 31, 2017, there are 116 discrepancies that need to be addressed. Expenditures show the contractor at 99.3% complete. The forecasted substantial completion date of August 7, 2017 was not achieved. A revised substantial completion date was not provided. 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 August 31 2017, there are 154 discrepancies that need to be addressed. Expenditures show that the contractor is 99.3% complete. The forecasted substantial completion date of August 31, 2017, was not achieved. A revised substantial completion date was not provided. Final Completion is still forecasted for November 29, 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 August 2017, the contractor continued closeout of open observations associated with station finishes and mechanical, electrical, and plumbing systems. As of August 31, 2017, there are 144 discrepancies that need to be addressed. Expenditures show the contractor at 99.0% complete. Substantial Completion and Final Completion, as reported at the August 16, 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 August 2017. As of August 31, 2017, there are 91 discrepancies that need to be addressed. Expenditures show the contractor at 98.6% complete. The forecasted substantial completion date of August 31, 2017, was not achieved. A revised substantial completion date was not provided. Final Completion is still 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 systems during August 2017. As of August 31, 2017, there 796 discrepancies that need to be addressed. Expenditures show the contractor at 99.0% complete. Substantial Completion and Final Completion, as reported at the August 16, 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 August 31, 2017 a total of 5,369 discrepancies are on the "Observations Lists" that need to be addressed on the five contracts that have not achieved Substantial Completion.

The status of the Manuals and "As-Built-Drawings" as of August 31, 2017 is as follows:

	Stations	Systems
Required	185	65
Submitted	185 (100%)	32 (49.0%)
Approved	141 (76.0%)	15 (23.0%)
Returned R&R	6 (3.0%)	10 (15.0%)
Under Review (NYCT)	38 (21.0%)	7 (11.0%)
To be Submitted	0 (0.0 %)	33 (623.0%)

#### Preliminary O&M Manuals

#### **Training Manuals**

	Stations	Systems
Required	114	49
Submitted	114 (100.0%)	22 (45.0%)
Approved	70 (61.0%)	16 (33.0%)
Returned R&R	11 (10.0%)	6 (12.0%)
Under Review (NYCT)	32 (28.0%)	0 (0.0%)
To be Submitted	0 (0.0%)	27 (55.0%)

#### As-Built-Drawings

	Stations	Systems
Required	7,951	4,337
Submitted	7,936 (99.8%)	925 (21.0%)
Reviewed	4,243 (53.0%)	793 (18.0%)
Approved	2134 (27.0%)	740 (17.0%)
Returned R&R	2,111 (27.0%)	53 (1.0 %)
Under Review (NYCT)	3,691 (46.0%)	133 (3.0%)
To be Submitted	15 (.2%)	3,412 (80.0%)

#### Observations:

MTACC is still maintaining a Quality Assurance/Quality Control presence on the project. Efforts are directed toward the resolution of discrepancies on the "Observations Lists", performing inspections of base and AWO work, resolution of nonconforming reports, review quality submittals, and review of preliminary O&M Manuals, Training Manuals, and "As-Built-Drawings".

## Concerns and Recommendations:

The time required for the station contractors to address the discrepancies is taking longer than anticipated because of the system being operational and the limited availability of contractor personnel. The systems contractor is subsequently impacted because of the delay of the station contractors.

The percentage of the approved manuals and as built drawings continues to be a concern to the PMOC given that construction is 99.5% complete. 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 open items on the observation list. The items are being tracked on an "Observation List". As of August 31, 2017, there are 5,369 open items on the "Observation List" of which 1,301 are "RSD+60" and "RSD+60(s) related. See Section 1.b for forecasted substantial completion dates. Submittal and approval of the required manuals and "as built" drawings are 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. MTACC has confirmed that none of the code compliance discrepancies presents a critical or serious safety risk to the general public or NYCT employees.

#### Concerns and Recommendations:

The PMOC recommends that the MTA Code Compliance Office continue monitoring the code compliance issues and mitigation measures implemented to assure that safety risks are minimized.

## 2.0 SCHEDULE DATA

#### Status:

The table below reflects SAS Phase 1 schedule data presented at the August 16, 2017, SAS Budget/Schedule Meeting.

Road Map for Project and Grant Closeout					
Description of Tasks	63rd Street	72nd Street	86th Street	96th Street	Systems
<ul> <li>Required Prior to Substantial Completion</li> <li>1. Outline of Proposed Schedule for submission of administrative items</li> <li>2. Completion of AWOs</li> </ul>	6/30/17 6/30/17	9/1/2017 7/31/2017	8/31/2017 8/31/2017	8/7/2017 6/30/2017	11/20/2017 11/20/2017
Substantial Completion (Forecast) Substantial Completion (Actual)	8/25/2017	9/1/2017	8/31/2017	8/7/2017	11/20/2017
3. Final SAS Certification	<		11/6/2017	I 	>
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 August 31, 2017, are \$4.316 billion. This is 97.0% of MTACC's \$4.451 billion Current Working Budget (exclusive of financing costs) and below the Full Funding Grant Agreement commitment of \$5.574 billion.

Construction expenditures as of August 31, 2017, are \$2.661 billion. This is 99.5% 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) 99.3%;
- 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) 99.0%; and,
- C26009 (C6 Systems) 99.0%

Soft Cost expenditures, as of August 31, 2017, are \$1.319 billion, which is 95.8% of the \$1.376 billion budget.

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

AWO Budget (Approved Contingency)	\$393,198,000
Executive Reserve	+ \$3,284,000 (unallocated see Table 5)
Total Contingency	\$396,482,000
Contingency Spent (thru 7/31/17)	-\$355,431,000
Contingency (balance)	\$41,051,000
Retroactive AWO Payments	+\$8,196,000
Contingency Remaining	\$49,247,000 (see Table 5)
AWOs (Negotiated Pending Approval)	-\$21,867,000
Available Contingency	\$27,380,000
AWOs (Pending Negotiation)	-\$50,257,000
MTACC Remaining Contingency	-\$22,877,000

#### **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.

<u>Concerns and Recommendation</u>: 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			
<ol> <li>MTACC's ability to implement its schedule acceleration program through compression of construction schedules.</li> </ol>		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. Continued slippage of the substantial completion dates indicates the need for a statusing method that will give greater insight into the activities associated with substantial completion dates. 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. 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. MTACC has committed to implement any design changes which address safety issues.			
3.	Availability of NYCT staff to support testing, commissioning, and final acceptance of work performed by SAS contractors.	NYCT Force Account efforts are ongoing in support of the closeout of discrepancies on the "Observation List", completion of AWO and base contract work and the review of test reports. NYCT force account budget has been exceeded and additional funds are required.			

	Management and Organizational Risks				
	Risk	Status			
<ul> <li>MTA code compliance reviews. Past experience suggests that risks involve delayed inspections, code interpretation issues</li> </ul>		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 August 31, 2017, there are still 1,301 open code compliance observations. Mitigation measures are ongoing until the code compliance discrepancies are resolved. The MTA Code Compliance Office should continue monitoring the code compliance issues and mitigation measures implemented to assure that the safety risks are minimized.			
	Technical and Co	ordination Risks			
	Risk	Status			
1.	Critical communication systems: fire alarm system, police radio installation, and startup at all stations.	Adequate testing of all the interfaces to the fire alarm system continues as a major risk in that integration testing is ongoing. The Systems Contractor's schedule shows substantial completion to be achieved on November 20, 2017. The issue associated with testing during the Systems Acceptance Phase subsequent to substantial completion has not been resolved.			

# 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 July 31, 2017, a total of 15,169,555 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 1.38 and a Recordable Rate (REC) of 3.98. 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 were not issued in a timely manner. The delay in the issuance of the test reports caused the Systems Safety Certification Committee to update its 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. As of August 16, 2017, one hundred ninety-seven (197) of the 330 test reports have been approved, 77 are being reviewed and 56 have to be resubmitted/submitted. Final certification is anticipated on November 6, 2017.

# 7.0 ISSUES AND RECOMMENDATIONS

**Schedule:** Correction of discrepancies on the observation list are requiring considerably more time while the system is operational. Standard operating procedures dictate what can be accomplished. Coordination/Progress meetings should continue on a regular basis so adjustments can be made to minimize the impacts on the schedule.

**Technical Issues:** MTA has identified some design issues that required mitigation. 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. Any design issues associated with safety are being approved and implemented.

**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 August 16, 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 Factory Acceptance Tests-FAT, Field Installation Acceptance Tests-FIAT, Simulated Integrated Systems Testing-SIST and Final Systems Integrated Testing-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 August 16, 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. NYCT force account personnel are still being utilized to verify the correction of discrepancies on the observation list.

<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 update its 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 to MTA that the certification process had been updated to accommodate the January 1, 2017 opening. The MTA opened the station with a temporary certification rather than a final certification. A final certification would have required a full body of evidence as verification that the Certifiable Items List associated with each certifiable element at each station had been completed. That full body of evidence will now be provided as part of the final certification, which is scheduled for November 20, 2017. As of August 16, 2017, one hundred ninety-seven (197) of the 330 test reports have been approved, 77 are being reviewed and 56 have to be resubmitted/submitted. Safety and Security Certification is ongoing and is projected to be completed by November 6, 2017.

**Financial**: As of August 31, 2017, \$4.316 billion (97.0%) of the MTACC's Current Working Budget of \$4.451 billion (exclusive of financing costs), has been expended. Project contingency is projected at negative \$22.9 million as noted on the August 31, 2017 AWO Exposure SAS Budget Reconciliation Report. MTACC committed to revise the cost Estimate at Completion (EAC) in order to address the apparent funding shortfall, given the scope of the open inspection observations, the level of testing still required, pending AWOs, and the probability of future claims. As of August 31, 2017, the EAC has not been revised and provided to the FTA/PMOC.

# **APPENDIX A – ACRONYMS**

ARRA	American Recovery and Reinvestment Act
AWO	Additional Work Order
BLS	Bureau of Labor Statistics
CBDS	Computer Based Dispatch System
СВН	Circuit Breaker House
ССМ	Consultant Construction Manager
CCTV	Closed Circuit Television
CD	Calendar Days
CIL	Certifiable Items List
СМР	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
МО	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**

FFGA	Forecast Completion		
	(March 2015)	Project Sponsor	РМОС
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

**Table 1 - Summary of Schedule Dates** 

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

	FFGA			FFGA Amend	MTA Current Working Budget (CWB)		Expenditures as of August 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	4,315.925	81.93
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	4,315.925	81.93
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	3,005.518	57.05
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		

# Table 2 - Project Budget/Cost 🟶

\* 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.

Category	Current Working Budget	EAC Forecast As of September 2016	
Total Construction	\$2,674,814,299	\$3,050,065,727	
Engineering Services Subtotal	\$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	

# Table 3 - Estimate at Completion

EAC is being updated to reflect current project status

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

Std. Cost Category	Description	FFGA	FFGA Amended	MTA's Current Working Budget	
(SCC)		(January 2008)	(March, 2015)	(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<sup>th</sup> Quarter 2016)

Project Status:			Orig	ginal at FFGA	Current*	ELPEP**	
Cost	Cost Estimate		\$4	,050 million	\$4,451 million (exclusive of financing)	\$4,980 million	
Contingonov	Unallocated Contingency (Management Reserve)		\$55	5.554 million	\$3.3 million (As of August 31, 2017)	\$45 million	
Contingency _	Total Remaining Contingency (Allocated plus Unallocated)		\$55	5.554 million	\$49.2 million (As of August 31, 2017)	\$45 million	
Schedule	Reve Date	nue Service	Ju	ne 30, 2014	January 1, 2017A	February 28, 2018	
See Section 3.0 for de	etail bi	reakdown of Projec	ct Conti	ngency			
Total Project	Based on Expenditures			96.4%			
Percent Complete	Based on Earned Value		N/A				
N		<b>C</b> ( )			0 1		
Major Issue		Status			Comments		
Major Issue Substantial and Proj Completion	ject	<b>Status</b> Open		considerably m limited and of s Coordination/P adjustments car	<b>Comments</b> iscrepancies while the system ore time. GOs for track ou horter durations, thus limiting rogress meetings are being a be made to minimize the im or substantial completion and	tages and foul time will be g what can be accomplished. held on a regular basis so apacts on the schedule	
Substantial and Proj				considerably m limited and of si Coordination/P adjustments car See Section 2 for On January 1, 2 began Revenue which are do Certificate of O memorandum si 60 days of rev Service (RSD) March 1, 2017. certificates with be resolved by 5,369 discrepar compliance reli- compliance disc	iscrepancies while the system ore time. GOs for track out horter durations, thus limiting rogress meetings are being a be made to minimize the im- or substantial completion and 2017, the Second Avenue Sub- Service. The service began vi- cumented in NYCT's Ce ccupancy Memorandum date tipulates that the open items enue service i.e., March 1, +60 days code compliance i Subsequently, Code Compli- in the revised stipulation that t April 15, 2017. As of Aug- ncies on the "Observation Lis	tages and foul time will be g what can be accomplished. held on a regular basis so apacts on the schedule project completion dates. way (SAS) Phase 1 Project with a number of open items rtification for Temporary ed December 29, 2016. The s must be completed within 2017. All of the Revenue ssues were not resolved by ance reissued the temporary he outstanding issues had to just 31, 2017, there are still st", of which 1,301 are code med that none of the code	

# Table 5 - Core Accountability Items

\* 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.