

PMOC MINI MONTHLY REPORT

Second Avenue Subway Phase 1 (MTACC-SAS) Project
Metropolitan Transportation Authority
New York, New York

May 1 to May 31, 2010

PMOC Contract No. DTFT60-09-D-00007

Task Order No. 2, Project No. DC-27-5115, Work Order No. 01

Ops Referenced: OP20-OP26, OP33, OP34, OP37, OP40, OP 41, OP53, OP54

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Length of time on project: 0 years

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EXECUTIVE SUMMARY

PROJECT DESCRIPTION

The Second Avenue Subway project will include a two-track line along Second Avenue from 125th Street to the Financial District in Lower Manhattan. It will also include a connection from Second Avenue through the 63rd Street tunnel to existing tracks for service to West Midtown and Brooklyn. Sixteen new ADA accessible stations will be constructed. The Second Avenue Subway will reduce overcrowding and delays on the Lexington Avenue line, improving travel for both city and suburban commuters, and provide better access to mass transit for residents of the far East Side of Manhattan. Stations will have a combination of escalators, stairs, and in compliance with the Americans with Disabilities Act, elevator connections from street-level to station mezzanine and from mezzanine to platforms.

Phase One of the project will include tunnels from 105th Street and Second Avenue to 63rd Street and Third Avenue, with new stations along Second Avenue at 96th, 86th and 72nd Streets and new entrances to the existing Lexington Av/63 Street Station at 63rd Street and Third Avenue.

COST BASELINE

FFGA \$4.87 billion (Federal = \$1.35; Local = \$3.52 billion including financing cost of \$817 million)

SCHEDULE BASELINE

Key Milestones:

- | | |
|---|-------------------|
| ▪ Preliminary Engineering (PE): | December 2001 |
| ▪ Final EIS Record Of Decision (ROD): | July 8, 2004 |
| ▪ FFGA: | November 19, 2007 |
| ▪ Final Design: | April 2006 |
| ▪ Original FFGA Revenue Service Date (RSD): | June 30, 2014 |
| ▪ Current MTA RSD: | December 30, 2016 |
| ▪ Current FTA/PMOC RSD: | February 2018 |

PROGRESS AND ISSUES

Contract C26002 formally commenced TBM mining activities on May 27, 2010. After a series of initial delays involving construction of the Launch Box, this contract has generally held schedule over the past several months. Actual TBM progress against schedule assumptions will be closely monitored to project potential time savings or further delays.

Key Issues to be monitored during the upcoming period:

- *Final design cost estimating and change order negotiation for the ground freeze to support the start of East Tunnel mining operations.*
- *Negotiation and approval of AWO#92 for 2,209 lf of additional TBM mining in the west tunnel to Station 1150+00 (\pm).*
- *Coordination with Contract C26005 for the tie-in of the 30" gas main and early access that will enable C26005 to accelerate performance of utility work between 94th and 95th Streets.*
- *MTACC will receive construction bids for Contract C26007 (72nd Street Station Cavern and Heavy Civil Construction) on June 10, 2010. This is a major contract for the Second Avenue Subway Project and a favorable bid will be an important element in project financial performance.*
- *MTACC will advertise for construction bids for Contract C26006 (63rd Street Station Upgrade) on June 17, 2010.*
- *Forecast completion of all design (exclusive of construction support) is September 30, 2010.*

MINI MONTHLY UPDATE

The information contained in the body of this report is limited, in accordance with Oversight Procedure 25, to "inform the FTA of the most critical project occurrences, issues, and next steps, as well as professional opinions and recommendations." Where a section is included with no text, there are no new "critical project occurrences [or] issues" to report this month.

ELPEP SUMMARY

Status:

As of the end of May 2010, MTACC continued to work cooperatively with the FTA to produce Management Plans as called for in the Enterprise Level Project Execution Plan (ELPEP). This month, the Schedule Management Plan was a priority, with meetings held on May 4, 13, 19, and 28, 2010. The meetings centered on a joint review of the flow charts prepared by MTACC and commented on by FTA/PMOC. The flow charts were used to clarify the process description in the Plan. Follow-on meetings are scheduled for the beginning of June to finalize the Plan. Discussions were held regarding decision points for the PMP review described in the Technical Capacity and Capability (TCC) Implementation Plan and Project Management Plan (PMP) Update. MTACC is developing a flow chart to identify material decision points in order to implement the review. A working group meeting was held on May 13 to review the ELPEP requirements for risk mitigation capacity. MTACC submitted a Cost Contingency Management Plan Outline on April 2, to which the PMOC provided comments on April 13, followed by a meeting to discuss the comments on April 15. MTACC has submitted cost estimate flow diagrams, which were incorporated into the Schedule Management Plan flow charts intended to facilitate the finalization of the Plan. The four flow diagrams to be developed were: (1) Process Flow Chart for updating the Cost Contingency (2) Work Breakdown Schedule (WBS) Cost Integration and Development of Baseline Cost Estimate, (3) Forecasting, and (4) Budget Adjustment Process. The flow charts will be reviewed in a working group in parallel to the finalization of the Schedule Management Plan.

The PMOC, FTA, MTA and SAS staffs held weekly update meetings on May 6, 13, 20, and 27, 2010. Based on the ELPEP effective date of January 15, 2010, the following items are scheduled to be completed in the next 30 days:

- *MTA will develop and finalize the Cost and Schedule Management Plans for the SAS project in conformance with ELPEP requirements.*
- *MTA will develop and finalize the Cost and Schedule Contingency Management Plans for the SAS project in conformance with the ELPEP requirements.*
- *MTA will demonstrate a functioning process for achieving the traceability of contract package scope from the design basis documentation through pre-construction planning into the contract package cost estimate and schedule through a contract package level WBS or functional equivalent for one active SAS contract package (C4B). MTA will provide FTA with a plan to demonstrate similar ELPEP conformance on all other un-awarded contract packages for both projects except for construction risk mitigation capacity.*

Intermediate deliverables and final plans submitted during this update period include:

- *May 10, 2010 – Revised Schedule Management Plan;*
- *May 26, 2010 – Revised Schedule Management Plan;*

Observation:

The ELPEP implementation process is behind the ELPEP schedule; however, the Schedule Management Plan is near completion and progress has been made in several other areas. The

weekly workshops continue to assist in tracking progress of the ELPEP implementation. The use of focused group efforts outside the weekly update meetings to review and revise plans continues to be an effective approach. This month, the SAS Project Team has continued to be proactive in the support of the ELPEP implementation effort.

MTA has produced draft intermediate deliverables for the Schedule Management Plan, the Cost Management Plan and Risk Mitigation and is in the process of producing intermediate deliverables for the TCC Implementation Plan reviews. The MTACC and the PMOC have discussed the overlap between the OP53 task and the package review portions of the ELPEP implementation requirements to coordinate efforts on similar tasks. This month, the PMOC was able to launch the OP53 review of Contract 4B following a delay in launching other related MTACC reviews.

Concerns and Recommendations:

MTACC has adopted the PMOC recommended strategy of producing flow diagrams to describe their schedule and cost estimate management processes in order to clearly define the process and facilitate the production of the final plans. The production and integration of flow charts into the Schedule Management Plan has led to a more descriptive document which has through its development resolved several internal MTACC work flow and management issues. Although this process requires additional effort and may seem to delay the production of the plans, in the long run, it is proving beneficial to mutually understanding the development of the plans and expediting approval. The PMOC recommends that the MTACC implement the TCC and PMP Update procedures in order to begin managing the PMP improvement process.

Table 1 Project Budget/Cost Table

	FFGA			FFGA Amendments	MTA's Current Working Budget (CWB)		Expenditures as of May 31, 2010	
	(\$ Millions)	(%) Grand Total Cost	Obligated (\$ Million)	TBD	(\$ Millions)	(%) Grand Total Cost	(\$ Millions)	% of Grand Total Cost
Grand Total Cost:	4,866.614	100	1,599.773		5,489.614	100	969.046	17.65
Financing Cost	816.614	16.78			816.614	14.88		
Total Project Cost:	4,050.000	83.22	1,599.773		4,673.000	85.12	969.046	17.65
Total Federal share:	1,350.693	27.75	353.991		1,350.693	24.60	262.512	4.78
Total FTA share:	1,300.000	96.25	325.898		1,300.000	94.62	260.052	4.74
5309 New Starts share	1,300.000	100	325.898		1,300.000	94.62	260.052	4.74
Total FHWA share:	50.693	3.75	28.093		50.693	5.38	2.460	0.04
CMAQ	48.233	95.15	25.633		48.233	96.67	0	0
Special Highway Appropriation	2.460	4.85	2.460		2.460	3.33	2.460	0.04
Total Local share:	2,699.307	55.47	1,245.782		3,322.307	60.52	706.534	12.87
State share:	450.000	16.67	100.000		450.000	13.54		
Agency share:	2,249.307	83.33	1,145.782		2,872.307	86.46		
City share:	0	0			0	0		

Data for this table was obtained from the transportation electronic award management system (team) and MTACC's grant management department.

Table 2 Summary of Critical Dates

	FFGA	Forecast Completion	
		Grantee	PMOC
<i>Begin Construction</i>	<i>January 1, 2007</i>	<i>03/20/2007A</i>	<i>03/20/2007A</i>
<i>Construction Complete</i>	<i>December 31, 2013</i>	<i>May 23, 2016</i>	<i>October 2017*</i>
<i>Revenue Service</i>	<i>June 30, 2014</i>	<i>December 30, 2016 (1)</i>	<i>February 2018*</i>

(1) SAS Phase 1 Integrated Construction Schedule, Revision 3, Update #29 dated January 13, 2009.

* From ELPEP

1.0 GRANTEE'S CAPABILITIES AND APPROACH

1.1 Technical Capacity and Capability

1.1.1 Organization, Personnel Qualifications and Experience

- a) Grantee's Organization**
- b) Staff Qualifications**
- c) Grantee Staffing Plan**

Status:

- Interviews are ongoing to find a candidate to fill the open Quality Manager position. In the interim, the MTACC Director of Quality is acting as the SAS Quality Manager.
- *During May 2010, the Construction Manager position for the 72nd Street Station was filled.*

Observations:

None

Concerns and Recommendations:

None.

- d) Grantee's Physical Resources**
- e) History of Performance, Adequacy of Management Systems**

1.1.2 Grantee's Work Approach, Understanding, and Performance Ability

- a) Adequacy of Project Management Plan and Project Controls**
- b) Grantee's Approach to FFGA and other FTA/Federal Requirements**
- c) Grantee's Approach to Community Relations, Asset Management, and Force Account Plan**
- d) Grantee's Approach to Safety and Security**

1.1.3 Grantee's Understanding of Federal Requirements and Local Funding Process Federal Requirements

- a) Uniform Property Acquisition and Relocation Act of 1970**
- b) Local Funding Agreements**

1.1.4 Scope Definition and Control

1.1.5 Quality

1.1.6 Project Schedule

1.1.7 Project Budget and Cost

Status:

Total project cost in the approved FFGA is \$4,866,614 million and is allocated into the Standard Cost Categories (SCC) as shown below in Table 1-1.

Table 1-1 Standard Cost Categories

Standard Cost Category (SCC) #	Description	Year of Expenditure \$000
10	Guideway & Track Elements	612,404
20	Stations, Stops, Terminals, Intermodal	1,092,836
30	Support Facilities: Yards, Shops, Admin Bldgs.	0
40	Site Work & Special Conditions	276,229
50	Systems	322,707
60	ROW, Land, Existing Improvements	240,960
70	Vehicles	152,999
80	Professional Services	796,311
90	Unallocated Contingency	555,554
Subtotal		4,050,000
Financing Cost		816,614
Total Project		4,866,614

Table 1-2 lists the associated grants in the Transportation Electronic Award Management (TEAM) System with respective appropriated and obligated amounts as of May 31, 2010.

Table 1-2 Appropriated and Obligated Funds

Grant Number	Amount (\$)	Obligated (\$)	Disbursement (\$) thru May 31, 2010
NY-03-0397	\$4,980,026	\$4,980,026	\$4,980,026
NY-03-0408	\$1,967,165	\$1,967,165	\$1,967,165
NY-03-0408-01	\$1,968,358	\$1,968,358	\$1,968,358
NY-03-0408-02	\$24,502,500	\$24,502,500	\$24,502,500
NY-03-0408-03	0	0	0
NY-03-0408-04	0	0	0
NY-03-0408-05	\$167,810,300	\$167,810,300	\$164,649,597
NY-03-0408-06	0	0	0
NY-17-X001-00	\$2,459,821	\$2,459,821	\$2,459,821

Grant Number	Amount (\$)	Obligated (\$)	Disbursement (\$) thru May 31, 2010
NY-36-001-00*	\$78,870,000	\$78,870,000	\$61,984,730
NY-95-X009-00	\$25,633,000	\$25,633,000	0
NY-95-X015-00	\$45,800,000	\$45,800,000	0
Total	\$353,991,170.00	\$353,991,170.00	\$262,512,197.00

* Denotes American Recovery and Reinvestment Act (ARRA) funds

A total of \$969,046,371 has been expended on the project through May 31, 2010, of which \$387,143,337 has been spent on design and \$297,587,669 on construction (MTACC's monthly financial input).

Observation:

Local funds totaling \$706,534,174 (\$969,046,371 – \$262,512,197) have been spent as of May 31, 2010.

Concerns and Recommendations:

None.

1.1.8 Project Risk Monitoring and Mitigation

1.1.9 Project Safety

Status:

The April 2010 OSHA recordable incident rate for the project is 1.2, and the lost time accident rate is 1.26. Both rates are well below the national averages of 4.2 and 2.2 respectively. *Data for May was not available as of the writing of this report. Updated data will be presented in the final report if available at that time.*

Observation:

SAS has an effective and proactive safety program.

Concerns and Recommendations:

None.

1.2 FTA Compliance Documents

1.2.1 Readiness to Enter PE

1.2.2 Readiness to Enter Final Design

1.2.3 Record of Decision (ROD)

1.2.4 Readiness to Execute FFGA

1.2.5 Readiness to Bid Construction Work

Status:

The OP53 review of the Contract 4B package commenced this period. Documents required for the chronology development were researched in MTACC's Electronic Data Management System (EDMS), and then subsequently transferred to the PMOC's computer servers. This will allow all members of the OP53 review team to have access to the documents.

Observation:

None

Concerns and Recommendations:

None

1.2.6 Readiness for Revenue Operations

2.0 PROJECT SCOPE

2.1 Status & Quality: Design/Procurement/Construction

2.1.1 Engineering and Design

Status:

The following table summarizes Final Design Completion Dates as reported by the MTACC via the most recent update of the Integrated Project Schedule (IPS) and at the end of the previous quarter. Schedule slippages associated with the completion of the design at 86th Street Station (DHA Mod #57) have been reported for several packages.

Table 2-1 Forecast Design Completion Dates

		<i>IPS Update #45</i>	<i>IPS Update #46</i>
<i>Contract</i>	<i>Description</i>	<i>Q1 - 2010</i>	<i>04/30/2010</i>
<i>Contract -26010 (2B)</i>	<i>96th Street Station Finishes and Mechanical, Electrical and Plumbing (MEP)</i>	<i>09/13/2010</i>	<i>09/15/2010</i>
<i>Contract-26006 (3)</i>	<i>63rd Street Station Modifications</i>	<i>04/19/2010</i>	<i>03/31/2010A</i>
<i>Contract-26011 (4C)</i>	<i>72nd Street Station Finishes and MEP</i>	<i>05/14/2010</i>	<i>06/02/2010</i>
<i>Contract-26008 (5B)</i>	<i>86th Street Station Cavern Construction</i>	<i>07/02/2010</i>	<i>07/22/2010</i>
<i>Contract-26012 (5C)</i>	<i>86th Street Station Finishes and MEP</i>	<i>09/13/2010</i>	<i>09/24/2010</i>
<i>Contract-26009 (6)</i>	<i>Systems –Track, Power, Signals and Communications</i>	<i>06/23/2010</i>	<i>09/23/2010</i>

Observation:

All design work is expected to be completed by September 2010.

Concerns and Recommendations:

Minor delays to station packages are not currently critical to the overall project schedule and are not anticipated to become critical. Recent design delays to Contract C26009 (Rail Systems)

may impact construction procurement and any further design delays to this package will almost certainly delay construction procurement. The PMOC recommends that alternatives to extending the design period for Contract C26009 be carefully examined and that concurrent methods to reduce the overall design/procurement period be incorporated to mitigate the impact of the delays.

2.1.2 Procurement

Status:

During this period, the bid due date for Contract-26007 (4B), (72nd Street Station Cavern Construction) was extended from May 20, 2010 to June 10, 2010. The extension will provide the bidders time to evaluate and incorporate Addenda # 16, 17, 18 and 19, dated May 11, May 14, May 27 and May 28, 2010, respectively. These addenda incorporate TBM and cavern mining sequence revisions and answer additional questions received from the bidders. Contract award has been delayed from July 6 to July 27, 2010.

Remaining procurement “milestones” for 2010 are summarized as follows:

Table 2-2: Construction Procurement Milestones - 2010

Activity #	Description	Date*	Comment
Contract C-26006: 63 rd Street Station Upgrade			
C3 PR25	Procurement (IFB) Advertise & Bid	06/17/10	Schedule dates were maintained during this reporting period.
C3 PR30	Open Bids	08/16/10	
C3 PR40	Award Contract C3	10/04/10	
Contract C-26008: 86 th Street Station Cavern & Heavy Civil			
C5B PR25	Procurement – Advertise C5B Bid Package	09/06/10	Advertise & bid dates delayed approximately 1 month during this period
C5B PR35	Procurement (IFB) Open Bids	01/11/11	
Contract C-26009: Systems			
SYPR 25	Procurement – Final Design Sign Off & Issue RFP	09/28/10	Schedule dates were maintained during this reporting period.
SYPR 30	Submit Proposals	11/24/10	

* Note: All dates reference IPS Update #46 (DD=04/30/10)

Observations:

During May 2010, procurement dates for Contracts C-26006 and C-26009 were generally maintained. Advertisement and Bid Opening for Contract C-26008 was delayed approximately one month, corresponding to delays in design completion discussed previously. This delay does not impact the overall project schedule.

MTACC has postponed the submission of contractor proposals for Contract C-26009 until design documents have been 100% completed and reviewed. Postponing this submission until 11/24/10 may not provide adequate time to evaluate proposals and negotiate price with the highest ranked team and still achieve the target contract award date of 03/31/11.

During the Q4/2010 – Q1/2011 period, MTACC is forecasting the advertisement of several additional rail system procurements for East Side Access and other MTA projects. MTACC is planning an outreach effort to inform the contractor community of these opportunities and promote competitive responses to all procurements.

Due to the combined requirements of East Side Access, Second Avenue Subway and other MTACC projects, the MTACC has forecast that several other rail systems procurements will be advertised

Concerns and Recommendations:

Achieving the procurement milestones listed above will be a critical element in overall schedule execution. The PMOC recommends that the MTACC evaluate alternatives and options for expediting the procurement process as contingent plans to offset probable delays in the procurement process and enhance the reliability of this schedule.

2.1.3 Construction

Status:

There are three active construction contracts on the SAS project. Construction progress on these contracts as of May 2010 is as indicated below:

- **Contract-26002(1) –TBM tunnels from 92nd Street to 63rd Street**
 - *Continued assembly of TBM components and trailing gear.*
 - *Continued installation of muck bins, conveyor system and muck bin observation deck.*
 - *Completed earth excavation within Launch Box.*
 - *Installation of mud slab continued and is nearly complete.*
 - *Installation of rock bolts within Launch Box near completion.*
 - *MTACC formally directed the Contractor to commence mining operations at the west tunnel. Initial mining operations commenced on May 27, 2010.*
 - *Geotechnical borings and permeability test above east starter tunnel completed.*
 - *Installation of building façade ties for 1821-23, 1825, 1827 and 1829 (AWO 93) was completed this period.*
 - *Commenced excavation and preparatory construction for the 78th Street Pump Station.*
 - *72nd Street Shaft; completed blasting and excavation. Leveling to final grade continues.*
 - *69th Street Shaft; ring beams and lagging installation completed. Started blasting and excavation. Spoil removal complete to 17 ft.*
- **Contract C-26005 (2A) -96th Street Station heavy civil, structural and utility relocation**
 - *Completed installation of 12-inch water line at former 98th Street and 2nd Avenue.*
 - *Started excavation for Sewer Chamber 95-1 and 48-inch sewer along 95th Street between 2nd and 3rd Avenues.*
 - *Completed installation of sewer crossing at 97th Street east side of 2nd Avenue.*
 - *Completed grouting fragile buildings on east side between 95th and 96th Streets; started excavation for 18-inch sewer.*
 - *Completed Con Ed Utility work (electrical & 30 inch gas line) in front of Metropolitan Hospital.*

- Completed Phase II demolition of Century Lumber Building and started permeation/compensation test program.
- **Contract C-26013 (5A) 86th Street Station excavation, utility relocation and road decking**
 - Replacement of 48-inch DIP watermain near completion
 - Completed replacement of 12-inch DIP water main at 87th Street (NW), and new 6-inch DIP water line and hydrant.
 - Completed traffic switch to center side to perform sidewalk cutback for Stage 2A at north end.
 - Completed new 12-inch PE gas line at southeastern side of 83rd Street.
 - Completed new PE gas service for Buildings # 302, 304, 306 and 308.
 - Completed demo and construction of man holes M63054 and 54753
 - Continued construction of new MH M60317, M14784 and M55.
 - Electrical ductbank construction:
 - MH M51 to M52
 - MH M54713 to M14769 and 14778
 - M51 to MH14769; M54744 to service box 15454; service box 15454 to 240 east of 87th Street
 - MH14778 to transformer vault
 - Service ducts to Buildings 1572, 1574, and 1576 on 2nd Avenue.

Observations:

None

Concerns and Recommendations:

None.

a) Force Account (FA) Contracts

2.1.4 Operational Readiness

2.2 Third-Party Agreement

2.3 Contract Packages and Delivery Methods

Status:

Contract packages and the proposed methods of procuring and delivering construction services have not changed this period.

Construction bids for Construction Contract 4B (72nd Street Cavern/Heavy Civil) will be received on June 10, 2010. Best available information suggests approximately 4 contractor teams are actively pursuing the project.

Observations:

None

Concerns and Recommendations:

None.

2.4 Vehicles

Status:

The decision to utilize 60 foot rail cars on the SAS project is being reevaluated. The reevaluation is part of an initiative by the new president of NYCT to optimize the entire NYCT rail fleet and infrastructure. The most recent information received unofficially from the NYCT is that the next rail car procurement replacing the R-44 fleet will be the 60 foot vehicles, with the 75 foot car question deferred to the next rail car procurement.

NYCT has stated in their Rail Fleet Management Plan that the purchase of vehicles for the SAS program may be cancelled based on NYCT projections for their fleet requirements to support the service including the SAS Phase I project. FTA and the PMOC have requested analysis to back up the NYCT calculations which according to the RFMP are based on a change to the NYCT fleet spare factor. The RFMP bases the change to spare factor on changes to fleet maintenance requirements.

These issues were discussed with NYCT at a meeting on May 25, 2010. A summary of the discussions at this meeting include:

- *Scheduled Maintenance Interval (SMI) extension tests. This initiative was confirmed to be primarily a cost-savings and efficiency improvement effort. NYCT will submit a written summary report on the matter, which will finalize their response.*
- *Fleet Spare Ratio. The PMOC explained that vehicles for SAS Phase 1 Service must be provided with no net effect on fleet operation and maintenance. NYCT stated that a decision to supply cars for SAS Phase 1 from the existing fleet had already been made. The upcoming R179 purchase was also identified as another near-term source of new vehicles.*

NYCT's plan for providing SAS Phase 1 cars will be fully described in the forthcoming draft of the Rail Fleet Management Plan to be issued in July 2010. NYCT further clarified that there is no plan to extend the life of the R46 fleet.

Observations:

None.

Concerns and Recommendations:

None.

2.5 Property Acquisition and Real Estate

Status:

Real estate acquisition and tenant relocation is being performed in accordance with the approved SAS Real Estate Acquisition Management Plan and Relocation Plan. These plans address Title 49 CFR Part 24, which implements the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, and FTA real estate requirements 5010.1C.

Real Estate acquisitions and relocation activities, commercial and residential, continue for the subway entrances and ancillary facilities at, 96th Street, 86th Street, 72nd Street and 63rd Street.

- *The 72nd Street entrance requires the permanent relocation of 48 residential tenants. To date 43 tenants have relocated to new residences. The relocation of 2 tenants is scheduled. Two tenants are actively engaged in seeking a new residence. One tenant has been recalcitrant to accept assistance in seeking a new residence.*
- *The temporary relocation of 12 residents at 1873 Second Avenue will be necessary to allow for structural reinforcement of the building. The temporary relocations will be for a period of 4 to 6 weeks. Two retail establishments on the 1st floor of 1873 Second Avenue will also be closed for a period of 4 to 6 weeks.*
- *The temporary relocation of 16 residents on the 2nd and 4th floors of 1821, 1823, 1825 1827 and 1829 Second Avenue will be necessary to allow for the structural reinforcement of the buildings. Façade work has been completed.*

Observations:

None.

Concerns and Recommendations:

None.

2.6 Community Relations

3.0 PROJECT MANAGEMENT PLAN AND SUB-PLANS

3.1 Project Management Plan

3.2 PMP Sub Plan

3.3 Project Procedures

4.0 PROJECT SCHEDULE STATUS

4.1 Schedule Status

Table 4-1 Summary of Critical Dates

	<i>FFGA</i>	<i>Forecast Completion</i>	
		<i>Grantee</i>	<i>PMOC</i>
<i>Begin Construction</i>	<i>January 1, 2007</i>	<i>03/20/2007A</i>	<i>03/20/2007A</i>
<i>Construction Complete</i>	<i>December 31, 2013</i>	<i>May 23, 2016</i>	<i>October 2017</i>
<i>Revenue Service</i>	<i>June 30, 2014</i>	<i>December 30, 2016</i>	<i>February 2018</i>

4.2 90-Day Look-Ahead

Based on the Integrated Project Schedule (IPS) *Update # 46*, which was received this period, major activities that can be anticipated over the upcoming 90 days include the following:

Table 4-2 90-Day Look – Ahead Schedule

Activity ID	Start	Finish
C1- TBM Construction – Tunnel 96th Box (91st to 95th)		
<i>TBM 1st Run – Mine West Tunnel from 96th Street Launch Box to 65th Street</i>	05/27/10A	11/15/10
Complete Design for Freeze Plant/Issue to S3	03/31/10A	06/30/10
C3 - 63rd Street Station Upgrade (IFB)		
Bid Advertisement	06/17/10	
Bids Due		08/16/10
C4B – 72nd St. Station Existing Demo/Mining & Lining (IFB)		
<i>Bid Opening</i>		06/10/10
<i>Notice of Award</i>		07/27/10
C6 – Systems (RFP)		
RFP Available	09/27/10	
CM1188 – Design Services MOD #57		
PE/FD for Ancillary #2 @ 86 th St Station; Contract 5A	05/10/10A	06/14/10
PE/FD for Ancillary #2 @ 86 th St Station; Contract 5B	05/17/10A	08/07/10
PE/FD for Ancillary #2 @ 86 th St Station; Contract 5C	05/24/10A	08/03/10
Systems	06/21/10	09/27/10

Completion dates for redesign work at 86th Street Station were extended this period between 7 Calendar Days (Contract 5A) and 56 Calendar Days (Contract 6). Delays to completion of this design work are not currently affecting construction procurement for Contracts 5A, 5B and 5C. However, this delay may impact the procurement process for Contract 6.

4.3 Critical Path Activities

Status:

IPS Update #46 was received on May 24, 2010 and is based on a Data Date of April 30, 2010. Update #46 did not contain any narrative report; however a schedule variance report, schedule revision log and “PDF” versions of several schedule reports were included. The following table summarizes the critical path as calculated in this schedule:

Table 4-3 Critical Path Activities

<i>Activity ID</i>	<i>Original Duration</i>	<i>Start</i>	<i>Finish</i>
<i>C1 - TBM Tunnel & 96th Box (91st to 95th)</i>	<i>375</i>	<i>16-Mar-10 A</i>	<i>12-Aug-11</i>
<i>Construction – Tunnel</i>	<i>375</i>	<i>16-Mar-10 A</i>	<i>12-Aug-11</i>
<i>C5 - 86th Street Station</i>	<i>1170</i>	<i>17-Feb-11</i>	<i>12-Aug-15</i>
<i>C5A - 86th Station - Excavation & Utility Work</i>	<i>128</i>	<i>17-Feb-11</i>	<i>18-Aug-11</i>
<i>C5B - 86th Station - Mining & Lining</i>	<i>602</i>	<i>7-Jul-11</i>	<i>28-Oct-13</i>
<i>C5C - 86th Station - Architectural & MEP Finishes</i>	<i>435</i>	<i>28-Oct-13</i>	<i>1-Jul-15</i>
<i>C6 - System Installation (86th Street Station)</i>	<i>200</i>	<i>6-Nov-14</i>	<i>12-Aug-15</i>
<i>C6 - Systems (Track, Signal, Traction Power & Communication)</i>	<i>247</i>	<i>11-Jun-15</i>	<i>23-May-16</i>
<i>C6 – Construction</i>	<i>247</i>	<i>11-Jun-15</i>	<i>23-May-16</i>
<i>NYCT Pre-Revenue Operation Test & Revenue Service / SC</i>	<i>205</i>	<i>21-Mar-16</i>	<i>30-Dec-16</i>
<i>NYCT Pre-Revenue Operation Test & Revenue Service / SC</i>	<i>205</i>	<i>21-Mar-16</i>	<i>30-Dec-16</i>
<i>NYCT Pre-Revenue Operation Test & Revenue Service</i>	<i>0</i>	<i>15-Jul-16</i>	<i>15-Jul-16</i>
<i>Phase1 Substantial Completion</i>	<i>120</i>	<i>15-Jul-16</i>	<i>30-Dec-16</i>

Update #45 contained the embedded “hand-off” activities, which represented MTACC’s approach to incorporating contingency time within the schedule. For Update #46, the MTACC has removed the handoff durations and added a single activity at the end of the logic that identifies 165 calendar days of contingency. That approach was agreed to during ELPEP discussions.

In order to maintain the RSD while some construction contracts are experiencing schedule slippage, the MTACC has used negative lags in the schedule. This is contrary to the intended strategy of consolidating the contingency time and consuming it through an observable and transparent process. The reasoning for the negative lags is that the testing and start-up activities are gross approximations of the work and the logic is summary in nature. A significant improvement in the schedule can be obtained with the inclusion of detailed test and start-up logic so that precise work relationships can be monitored.

Observations:

It is the opinion of the PMOC that eliminating the embedded contingency results in a more accurate forecast of the actual project critical path(s).

Without any embedded contingency activities, Update #46 forecasts a Revenue Service Date (RSD) of July 18, 2016.

The logic representing testing and startup inadequately represents the work.

It is the PMOC’s opinion that the difference between this forecast RSD and December 30, 2016 is the best measure of schedule contingency currently available.

The difference between July 18, 2016 and December 30, 2016 is 165 calendar days.

Contract 1 (C-26002) TBM Tunnels initiates the critical path. Over the reporting period of one month, this contract lost 8 work days to the turn over to the 86th Street Station. This delay is the result of delays in the start of production mining. The installation, setup and starting of the TBM was about a week later than planned.

The MTACC has been utilizing negative lags in the schedule to prevent the RSD from pushing to a later date. The early program loss in production on critical items directly affects the RSD. While alternative work plans are being developed and to maintain the RSD, the MTACC chose to use the negative lags.

Substantial Completion/Revenue Service Date was held at December 30, 2016. This was accomplished through consumption of project level float embedded in the project schedule by the MTACC. There are 165 calendar days of contingency float on the critical path but various negative lags alter the effectiveness of this measurement.

This period, the PMOC conducted a comprehensive technical analysis of the IPS. The findings are summarized in the following table.

Table 4-4 IPS Technical Analysis

Category	Result
<i>Plan finish date</i>	<i>12/30/16</i>
<i>Plan remaining duration</i>	<i>2,437</i>
<i>Normal activities</i>	<i>3,044</i>
<i>Summary activities</i>	<i>635</i>
<i>Milestone activities</i>	<i>360</i>
<i>Hammock activities</i>	<i>6</i>
<i>Calendars</i>	<i>9</i>
<i>Links</i>	<i>5,160</i>
<i>Activities with no progress</i>	<i>1,784</i>
<i>In progress activities</i>	<i>271</i>
<i>Completed activities</i>	<i>1,990</i>
<i>Total activities</i>	<i>4,045</i>
<i>Constraints</i>	<i>110</i>
<i>Open-ended activities (Does not include ignored links)</i>	<i>205</i>
<i>Out of sequence updates ("broken logic")</i>	<i>20</i>
<i>Lags longer than 0 units</i>	<i>237</i>
<i>Negative lags ("leads")</i>	<i>94</i>
<i>Positive lags on Finish-to-Start links</i>	<i>67</i>
<i>Lags between activities with different calendars</i>	<i>14</i>

Based on this analysis, the PMOC has the following observations regarding the technical aspects of the IPS:

- *Schedule constraints have a significant effect on schedule calculation results as well as any supplemental risk analysis results. The number of constrained dates should be kept to an absolute minimum. 110 constraints is a very large number of constraints for a schedule of only 4,045 activities.*
- *The logic in a plan can be broken when activities have started or finished before their predecessors. Broken logic may suggest a change in plan requiring new logic.*
- *A lag is a gap in time between two activities that are linked together. Usually, a lag can be replaced with an activity that better explains the specific situation being modeled in the schedule. Lags with durations tend to compromise the reliability and verifiability of the schedule. Good practice generally requires the duration of lags to be explained via narrative.*
- *A negative lag is used to force another task to start (or finish) before the referenced activity. A negative lag is usually somewhat counter-intuitive and can almost always be replaced with simpler, more straightforward activity logic.*
- *Open-ended activities generally suggest incomplete schedule logic. The completion of a task or group of tasks has not been logically related to the remainder of the project. Open ends have the effect of producing unrealistically large amounts of float. This may result in an erroneous evaluation of the relative criticality of a task or group of activities.*

Concerns and Recommendations:

The PMOC recognizes that the IPS is a hybrid schedule that is not subject to the same scrutiny as a construction contract schedule. However, it is the PMOC's opinion that generally accepted scheduling practices should be utilized in developing and maintaining the IPS in order to promote its accuracy and reliability. To that end, the PMOC recommends the following:

- *Where possible, replace lags with durations with activities that explain what is happening during that time period.*
- *Review schedule logic involving open-ended activities.*
- *Eliminate negative lags to the greatest extent possible. Replace with schedule logic that can be verified and understood.*
- *Eliminate constrained dates where possible.*

5.0 PROJECT COST STATUS

5.1 Budget/Cost

The FFGA baseline budget and current working budget are broken down into Standard Cost Categories in year of expenditure dollars as follows:

Table 5-1 Allocation of Current Working Budget to Standard Cost Categories

<i>Standard Cost Category (SCC)</i>	<i>Description</i>	<i>FFGA</i>	<i>MTA's Current Working Budget</i>
10	Guideway & Track Elements	\$612,404,000	\$728,617,000
20	Stations, Stops, Terminals, Intermodal	\$1,092,836,000	\$1,276,632,000
30	Support Facilities	0	\$562,000
40	Site Work & Special Conditions	\$276,229,000	\$537,621,000
50	Systems	\$322,708,000	\$247,627,000
60	ROW, Land, Existing Improvements	\$240,960,000	\$292,000,000*
70	Vehicles	\$152,999,000	0**
80	Professional Services	\$796,311,000	\$885,941,000
90	Unallocated Contingency	\$555,554,000	\$482,000,000
<i>Subtotal</i>		<i>\$4,050,000,000</i>	<i>\$4,451,000,000</i>
<i>Financing Cost</i>		<i>\$816,614,000</i>	<i>\$816,614,000</i>
<i>Total Project</i>		<i>\$4,866,614,000</i>	<i>\$5,267,614,000</i>

* Includes \$47M Cost-to-Cure

** FTA has not approved the removal of the vehicles from the scope of work.

Status:

The MTACC's current Estimate At Completion for the Second Avenue Subway is summarized as follows:

Table 5-2 Current Estimate at Completion

<i>Component</i>	<i>FFGA Budget</i>	<i>Current MTA EAC</i>	<i>Rounded</i>
<i>Design Services</i>	<i>\$410,000,000</i>	<i>\$445,000,000</i>	
<i>Construction</i>	<i>\$2,601,211,756</i>	<i>\$2,990,211,756</i>	
<i>Soft Costs & Misc.</i>	<i>\$1,038,788,244</i>	<i>\$1,015,788,244</i>	
<i>Subtotal</i>	<i>\$4,046,810,188</i>	<i>\$4,439,352,986</i>	<i>\$4,451,000,000</i>
<i>Finance Cost</i>			<i>\$816,614,000</i>
<i>TOTAL</i>			<i>\$5,267,614,000</i>

Source: Current Budget Summary, prepared by MTACC, as of March 31, 2010.

The PMOC notes that this EAC omits any cost for new Rolling Stock and that this budget modification has not been approved by the FTA. MTACC EAC values have otherwise been used in this discussion for clarity. The MTACC has stated that the EAC is based upon cost estimates for unawarded construction contracts contained in the Updated Cost Estimate – Revision 7,

dated October 2009. Based on this information, the Construction Component of the MTACC's current EAC can be further analyzed as:

Table 5-3 Estimated Construction Cost Variance

	<i>MTACC Current EAC</i>	<i>U/E Analysis</i>	<i>Variance</i>
<i>Contract Awarded (including proportional AWO contingency)</i>	<i>\$734,306,789</i>	<i>\$734,307,289</i>	
<i>Contracts to be Awarded (w/o any contingency)</i>	<i>\$2,273,904,967</i>	<i>\$2,318,152,961</i>	<i>-\$44,247,994</i>
<i>Value Engineering Adjustment</i>	<i>-\$18,000,000</i>		<i>-\$18,000,000</i>
<i>TOTAL</i>	<i>\$2,990,211,756</i>	<i>\$3,052,460,250</i>	<i>-\$62,248,494</i>

The PMOC has reviewed these variances with MTACC, which had no immediate explanation for the \$44M variance in contracts to be awarded. MTACC is investigating the matter and will report when its evaluation is complete. The PMOC also questions the validity of the \$18M Value Engineering adjustment. In order to be considered, the anticipated cost savings or scope reduction represented by this adjustment should be identified. MTACC should verify that any such adjustments have not already been incorporated in the updated package cost estimates.

Updated Additional Work Order (AWO) Tracking Logs for each active construction contract through May 31, 2010 were received from MTACC on June 4, 2010. These logs are summarized as follows:

Table 5-4 Additional Construction Cost

Contract	Award	AWOs **		Exposure ***	
		\$	% of Award	\$	% of Award
<i>C26002 (1)</i>	<i>\$337,025,000</i>	<i>\$11,382,652</i>	<i>3.38%</i>	<i>\$28,693,068</i>	<i>8.51%</i>
<i>C26005 (2A)*</i>	<i>\$323,889,861</i>	<i>\$1,154,864</i>	<i>.36%</i>	<i>\$4,170,555</i>	<i>1.29%</i>
<i>C26013 (5A)</i>	<i>\$34,070,039</i>	<i>\$497,415</i>	<i>1.46%</i>	<i>\$1,789,918</i>	<i>5.25%</i>
<i>TOTAL</i>	<i>\$694,984,900</i>	<i>\$13,034,931</i>	<i>1.88%</i>	<i>\$34,653,541</i>	<i>4.99%</i>

* Contract Option 1 added to award value for reporting consistency

** Includes only contract modifications approved and reported through 05/31/10

*** Includes both approved AWOs and open AWOs. Contract (1) value does not include estimated cost of AWO #92, which should be recovered through reduced bid prices for subsequent packages.

At the Quarterly Review Meeting on May 18, 2010, MTACC presented their Cost Contingency Analysis. Combining the MTACC's presentation with Tables 5.3 and 5.4 (above) results in the following:

Table 5.5 Available Contingency

	<i>Using Executed AWOs only</i>	<i>Using All AWOs</i>	<i>Comments</i>
<i>Total Contingency</i>	<i>\$520,719,000</i>	<i>\$520,719,000</i>	<i>PMOC accepts MTACC's estimate of total project contingency presented on May 18, 2010</i>
<u><i>Adjustments:</i></u>			
<i>Contracts to be Awarded</i>	<i>-\$44,247,944</i>	<i>-\$44,247,944</i>	<i>"Worst-Case Scenario" adjustments based upon discrepancies previously noted in Table 5.3</i>
<i>VE Adjustment</i>	<i>-\$18,000,000</i>	<i>-\$18,000,000</i>	
<i>AWO</i>	<i>-\$13,034,931</i>	<i>-\$34,653,541</i>	<i>From Table 5.4</i>
<i>Available Contingency</i>	<i>\$445,436,125</i>	<i>\$423,817,515</i>	

Observations:

Cost Contingency Management is a key element of the ELPEP. Based upon current information and understanding, there exists a range of "Available Contingency" values that could be considered appropriate. As demonstrated above, factors influencing this calculation include:

- *Reconciliation of discrepancies/questioned items in the MTACC Budget Summary. The above analysis assumes a worst-case scenario that the value of these discrepancies would be deducted from available contingency. The PMOC will work with the MTACC to reconcile these numbers during the upcoming period.*
- *The ELPEP is silent on the manner by which the actual available contingency will be calculated for any period. As demonstrated above, this can significantly affect the contingency calculation.*

Concerns and Recommendations:

Review and reconciliation of the method used to calculate available contingency and the specific data to be used in those calculations is recommended in order to effectively administer the terms and conditions of the ELPEP. The PMOC will work with the MTACC over the upcoming period(s) to resolve these matters well in advance of approaching the threshold limits.

5.2 Cost Variance Analysis**5.3 Project Funding Status**

6.0 PROJECT RISK

6.1 Initial Risk Assessment

Status:

MTACC has developed a Risk Management Program through various workshops and mutual cooperation. The PMOC has documented the efforts of the Risk Assessment Team in various draft Spot Reports. The MTACC and FTA have identified and documented the risk mitigation initiatives in a scoping document for incorporation into the PMP.

Observations:

The SAS Project Team and the FTA's Risk Assessment Team have worked to address issues which could impact the success of the project. The FTA/PMOC has been meeting with MTACC regularly to effectuate a revised schedule and cost estimate that will be acceptable to all parties.

Concerns and Recommendations:

The PMOC's recommendation that a Financial Management Oversight Contractor (FMOC) review the MTACC's financial capacity to fund the SAS project has been implemented and is in process.

6.2 Risk Updates

6.3 Risk Management Status

6.4 Cost and Schedule Contingency

6.5.1 Cost Contingency

Status:

The MTACC has agreed to the requirements of the ELPEP to develop a Cost Contingency Management Plan. Development of the plan is in process.

Observations:

The ELPEP requires the MTACC to develop a Cost Contingency Management which will address all the requirements identified in Section IV a. of the ELPEP. The plan will define such processes as how the MTACC will forecast required contingency funds manage and transfer all project cost contingency and how the minimum level of contingency will be maintained.

MTACC has agreed to maintain a minimum contingency of:

- \$220 million through 90% Bid and 50% Construction.
- \$140 million through 100% Bid and 85% Construction
- \$45 million through Start Up and Pre-Revenue Operations

MTACC has stated that they anticipate covering higher than anticipated construction cost growth through surplus AFI. In effect, MTACC is expecting construction bids to be less than the sum of the Direct Construction Cost + AFI.

Based upon scope revisions to Contract 4B discussed in the PMOC 04/01/10 -> 04/30/10 Monthly Report, MTACC estimates the revised cost of construction for this package to be approximately \$415,500,000 (Estimate Rev. 7c). Based on this value, after additional

engineering costs and construction scope added to Contract 1 are deducted, available contingency for the project will increase by approximately \$32 million.

Tracking the available contingency will be accomplished via the accompanying dataset, using either a tabular or graphic presentation.

Table 6-1 Cost Contingency

<i>Update</i>	<i>04/30/10</i>	<i>05/31/10</i>	<i>06/30/10</i>	<i>07/31/10</i>
<i>Project Contingency</i>	<i>\$520,719,000</i>	<i>\$520,719,000</i>		
<i>Adjustment (AFI)</i>	<i>-\$44,247,944</i>	<i>-\$44,247,944</i>		
<i>Adjustment (Other)</i>	<i>-\$18,000,000</i>	<i>-\$18,000,000</i>		
<i>AWO</i>	<i>-\$13,102,225</i>	<i>-\$13,034,931</i>		
<i>Available Contingency</i>	<i>\$445,368,831</i>	<i>\$445,436,125</i>		

Concerns and Recommendations:

To date, construction contract awards have significantly exceeded estimated cost and construction cost growth for active contracts has already reached 5% of award value (Table 5.4). Unless favorable bid results for Contract 4B (June 10, 2010), Contract C3 (August 16, 2010) and Contract C5 (January 11, 2011) are received, MTACC's management of contingency may need to be revised.

6.5.2 Schedule Contingency

Status:

The MTACC has agreed to the requirements of the ELPEP to develop a Schedule Contingency Management Plan. Development of the plan was substantially completed this period.

The MTACC has modified its method of managing schedule contingency. Previously, MTACC embedded "hand-off" activities throughout the schedule, a method which reportedly allocated schedule contingency to the various construction packages. The PMOC previously discussed its concerns with respect to this approach. Effective this period, MTACC has reduced the duration of all hand-off activities to "zero". Schedule Contingency is the difference between the calculated Revenue Service Date and either December 31, 2016 (MTA) or February 28, 2018 (PMOC/FTA).

Observations:

Tracking the available schedule contingency will be accomplished via the accompanying data set, using either a tabular or graphic presentation.

Table 6-2 Schedule Contingency

IPS Update #	45	46	47	48	49	50
Data Date	04/01/10	04/30/10				
Contingency (CD)						
RSD=12/31/2016	115*	165				
RSD=02/28/2018	539	589				

*Estimated by PMOC based on schedule Update #45, provided by MTACC

Based on the forecast Revenue Service Date of February 2018 for the SAS project, the MTACC has agreed to maintain a minimum level of schedule contingency of 240 days through Q3 2016 at which time the schedule contingency minimums will be updated as mutually agreed. Failure to meet this requirement will trigger the requirement for a recovery plan.

Concerns and Recommendations:

Complete integration of the Contract 6 (Systems) in the IPS is a significant remaining risk to the accuracy and reliability of the IPS. It will be approximately 18 months until a contractor's construction schedule for this package is available. PMOC recommends a review and update of the current schedule representing this package as an interim means of addressing this concern.

7.0 LIST OF ISSUES AND RECOMMENDATIONS

Priority in Criticality column

1 – Critical

2 – Near Critical

Number with Date Initiated	Section	Issue/Recommendation	Criticality
SAS-07-Jan10	2.1.2 Procurement	<p>The PMOC is concerned about the utilization of the IFB process for Contract 4B because of its estimated value. The scope of the contract might limit the number of responsive and responsible bidders, which would extend the procurement process. This contract is on the near critical path and any slippage could have a major impact on the project.</p> <p><u>Update:</u> <i>Based on available information, it appears three or four competitive teams are preparing to submit a bid for this package.</i></p>	2
SAS-08-Jan10	2.2 Third Party Agreements	<p>The PMOC is concerned that in several cases agreed upon design and scope of work has been revised when later reviewed by other personnel within the agencies.</p> <p><u>Update:</u> <i>MTACC has stated that no design packages would be considered 100% complete unless formal agreements with utilities had been executed.</i></p>	2

Number with Date Initiated	Section	Issue/Recommendation	Criticality
SAS-09-Jan10	3.1 PMP	<p>The PMP and its sub-plans must be updated to reflect the new management processes and strategies of the ELPEP.</p> <p><u>PMOC Recommendation:</u> Update the PMP and its sub-plans within the timeframes established in the ELPEP.</p>	2
SAS-10-Jan10	3.2 PMP Sub-Plans	<p>MTACC is required to develop and finalize a Cost and Schedule Management Plan, and a Cost and Schedule Contingency Management Plan for the SAS in conformance with ELPEP requirements within 60 days of January 15, 2010. The PMOC is concerned that the 60 day requirement may not be met.</p> <p><u>Update:</u> This process is ongoing. Schedule Management Plan is essentially complete; Cost Management Plan is in progress.</p>	2
SAS-11-Jan10	3.3 Procedures	<p>The PMOC is concerned whether the new procedures will actually be utilized by the different operating agencies within the MTACC, given that NYCT will implement SAS, and the procedures of the SAS PMP reflect the NYCT quality management system.</p> <p><u>PMOC Recommendation:</u> The PMOC recommends that the MTACC develop a process to assure itself that all of these procedures are in use on all of its projects. An example of such a process would be a new procedure distribution system that would require the recipients (the individual Project Managers) to acknowledge receipt of each new procedure as it is released for implementation. This system could be monitored by the parent MTACC to assure implementation across all its organizations and provide it with the opportunity to correct any non-conformances as they develop.</p>	2
SAS-12-Jan10	4.2 Critical Path Activities	<p>The MTACC should investigate the detailed relationships between construction contracts to determine a precise amount of hand-off time. The strategy for the late performance of construction is to consume hand-off duration downstream. Significant amounts of hand-off could be consumed</p>	1

Number with Date Initiated	Section	Issue/Recommendation	Criticality
		<p>because of the late performance of Contract 1. The hand-off time is contingency time and should only be consumed in prescribed fashion.</p> <p><u>Update:</u> <i>Handoff contingencies have been eliminated. Contingency is now defined as the difference between the calculated RSD and either 12/31/16 or 02/28/18. This item will be closed.</i></p>	
SAS-13-Jan10	4.2 Schedule Performance Analysis	<p>There is a contractual milestone for the turnover of work from Contract 1 to the 86th Street mining Contract 5B. This relationship is likely to be critical or near critical. Currently, delays in achieving this milestone are of no consequence to Contract 1. Significant logic and activity durations changes are being implemented to Contract 1 as a result of ongoing delay in mitigation efforts.</p> <p><u>Update:</u> <i>Contractual milestones are incorporated in contract schedules and are managed in accordance with the terms and conditions of the construction contract. Contract milestones are not constrained in the IPS schedule. The interpretation and validity of this approach is still being reviewed with MTACC.</i></p>	2

8.0 GRANTEE ACTIONS FROM QUARTERLY AND MONTHLY MEETINGS

Priority in Criticality column

1 – Critical

2 – Near Critical

Number with Date Initiated	Section	Grantee Actions	Criticality	Projected Resolution
SAS-A17-Aug08	2.4 Vehicles	<p>The PMOC requested additional information regarding certain statements in the draft Rail Fleet Management Plan:</p> <ul style="list-style-type: none"> ▪ NYCT should provide a test plan for increasing the period between inspections of the new technology fleet. ▪ NYCT should explain why, in light of the ongoing state of good repair fleet replacement program, the cars financed under the SAS project are no longer needed. ▪ MTACC should explain why they are considering removing the vehicles from the project scope without reducing the project funding. <p><u>Update:</u> The supply of vehicles for SAS Phase 1 will be addressed in the Draft Fleet Management Plan, scheduled for distribution in July 2010.</p>	2	7/30/10
SAS-A18-Aug08	ELPEP Updates	<p>The change in the Contingency Drawdown Curve, particularly the latent contingency, needs to be clarified.</p> <p><u>Update:</u> At the quarterly meeting, a new contingency drawdown curve was presented. Management of the contingency is being addressed in the newly required Cost Contingency Management Plan.</p>	2	6/30/10

APPENDIX A -- LIST OF ACRONYMS

AFI	Allowance for Indeterminates
ARRA	American Recovery and Reinvestment Act
AWO	Additional Work Order
BCE	Baseline Cost Estimate
BFMP	Bus Fleet Management Plan
CCM	Consultant Construction Manager
CD	Calendar Day
CMAQ	Congestion Mitigation and Air Quality
CPM	Critical Path Method
CPRB	Capital Program Review Board
DHA	DMJM+Harris and ARUP
DOB	New York City Department of Buildings
EAC	Estimate at Completion
ELPEP	Enterprise Level Project Execution Plan
FD	Final Design
FEIS	Final Environmental Impact Statement
FPGA	Full Funding Grant Agreement
FTA	Federal Transit Administration
HLRP	Housing of Last Resort Plan
IFP	Invitation for Proposal
IPS	Integrated Project Schedule
MEP	Mechanical, Electrical, Plumbing
MTACC	Metropolitan Transportation Authority
MTACC	Metropolitan Transportation Authority – Capital Construction
N/A	Not Applicable
NTP	Notice to Proceed
NYCDEP	New York City Department of Environmental Protection
NYCT	New York City Transit
PE	Preliminary Engineering
PMOC	Project Management Oversight Contractor (Urban Engineers)
PMP	Project Management Plan
PQM	Project Quality Manual
RAMP	Real Estate Acquisition Management Plan
RFMP	Rail Fleet Management Plan
RFP	Request for Proposal
ROD	Record of Decision
ROD	Revenue Operations Date
RSD	Revenue Service Date
S3	Skanska, Schiavone and Shea
SAS	Second Avenue Subway
SCC	Standard Cost Categories
SSMP	Safety and Security Management Plan

SSOA	State Safety Oversight Agency
SSPP	System Safety Program Plan
TBD	To Be Determined
TBM	Tunnel Boring Machine
TCC	Technical Capacity and Capability Plan
TIA	Time Impact Analyses