

FEDERAL TRANSIT ADMINISTRATION

PROJECT MANAGEMENT OVERSIGHT PROGRAM

Contract No. DTFT60-04-D-00012

Project No. DC-27-5006

Task Order No. 3

Grantee: METROPOLITAN TRANSPORTATION AUTHORITY
SECOND AVENUE SUBWAY (MTACC-SAS)

REGION II MAJOR CAPITAL PROJECTS

Monthly Report – Part I November 2008

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TABLE OF CONTENTS

	Page No.
SECTION III SECOND AVENUE SUBWAY PROJECT	
TABLE OF CONTENTS.....	I
LIST OF ACRONYMS	II
I EXECUTIVE SUMMARY.....	1
A. PROJECT DESCRIPTION.....	1
B. PROJECT STATUS	1
C. SCHEDULE.....	1
D. COST DATA.....	3
E. TECHNICAL CAPACITY REVIEW	4
F. SYSTEM SAFETY REVIEW.....	4
G. MAJOR ISSUES/PROBLEMS	4
ATTACHMENT A - SAFETY CHECKLIST SECOND AVENUE SUBWAY.....	5
II. ACTION ITEMS – ITEMS FOR GRANTEE ACTION	8
III. OBSERVATIONS AND CURRENT ISSUES.....	13
ATTACHMENT B - SUMMARY OF CONCERNS AND RECOMMENDATIONS.....	25

OST Project Status Report – separate submittal to CO, COTR and TOM via e-mail

LIST OF ACRONYMS

AWO	Additional Work Order
CPM	Critical Path Method
DHA	DMJM+Harris and ARUP
FD	Final Design
FEIS	Final Environmental Impact Statement
FFGA	Full Funding Grant Agreement
FTA	Federal Transit Administration
MEP	Mechanical, Electrical, Plumbing
MTA	Metropolitan Transportation Authority
MTACC	Metropolitan Transportation Authority – Capital Construction
N/A	Not Applicable
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
ROD	Revenue Operations Date
TEAM	Transportation Electronic Award Management
TIA	Time Impact Analyses
S3	Skanska, Schiavone and Shea
SAS	Second Avenue Subway
SCC	Standard Construction Categories
SSMP	Safety and Security Management Plan
SSOA	State Safety Oversight Agency
SSPP	System Safety Program Plan
TBD	To Be Determined

SECTION III SECOND AVENUE SUBWAY (SAS) PROJECT

I EXECUTIVE SUMMARY

A. Project Description

- **General Description:** The Second Avenue Subway (SAS) project will connect Manhattan's Central Harlem area with the downtown financial district, relieving congested conditions on the Lexington Avenue line. The current project scope includes: tunneling; station/ancillary facilities; track, signal, and electrical work; vehicle procurement; and all other subway systems necessary for operation. The project consists of four phases, with Phase 1 providing an Initial Operating Segment (IOS) from 96th Street to 63rd Street, and will connect with the existing Broadway Line that extends to Lower Manhattan and Brooklyn. Subsequent phases will extend the line northward to 125th Street and to the southern terminus at Hanover Square in Lower Manhattan.
- **Length:** Phase 1 - 2.3 miles from 63rd Street to 105th Street. Total Project - 8.5 miles from 125th Street and Lexington Avenue in Central Harlem to Lower Manhattan.
- **No. of Stations:** Total Project -16 new stations. Phase 1-two new mined stations located at 72nd and 86th Streets, One new cut and cover station at 96th Street, and modification of the existing 63rd Street Station on the Broadway Line.
- **Additional Facilities:** New storage tracks will be provided along the alignment and at the north and south terminals during the later phases of the project, but not as part of Phase 1.
- **Vehicles:** Total Project - Approximately 224 railcars that are 75 feet long (28 new 8-car train sets). Phase 1 - 68 new rail cars (includes 12 spares).
- **Ridership Forecast:** The full length SAS is forecast to carry 560,000 daily riders in 2030. Upon completion of Phase 1, ridership is expected to be 191,000 per the MTA's Regional Travel Forecast Model.

B. Project Status

- The project is in the Final Design/Construction phase.

C. Schedule

- **Preliminary Engineering (PE):** Entry into PE was approved by FTA on December 20, 2001; PE completed April 17, 2006.
- **Record of Decision:** Record of Decision issued on July 8, 2004.
- **Final Design (FD):** Entry into FD (Phase 1) was approved by FTA on April 18 2006.
- **Full Funding Grant Agreement (FFGA):** The FFGA was executed on November 19, 2007.

- **Construction:** The start of the Construction Phase was authorized with the approval of an Early Systems Work Agreement (ESWA) on January 5, 2007. The first construction contract, Contract 1 Tunnel Boring, was awarded on March 20, 2007. A Ground-Breaking ceremony was held on April 12, 2007. Through *November 30, 2008*, construction is 3.82% complete based on total expenditures of contract 1 versus total projected construction cost (all contracts) at completion.
- **Project Complete:** Through *November 30, 2008*, total Phase 1 Project percent complete is 13.89% (based on total expenditures versus Phase 1 projected cost at completion). Financing not included (see Section D note 2). Percent complete will be reduced when financing is included.
- **Revenue Operations Date:**

Phase 1 (MOS)

FFGA	Proposed FFGA as Amended	Forecast Completion		Actual Completion
		Grantee	PMO	
June 30, 2014	N/A	June 2015 (1)	TBD	TBD

(1) Proposed MTA 2008-2013 Capital Program dated February 2008

- **Other:** The Environmental Impact Statement was approved on April 8, 2004.
- **Next Quarterly Review Meeting:** TBD

Cost Data for Phase 1

	FFGA			FFGA Amendments	Current Costs Estimate at Completion		Expenditures Thru November 30, 2008	
	(\$ Millions) (1)	(%)	Obligated		(\$ Millions) (2)	(%)	(\$ Millions)	Percent of Current Project Cost
Total Project Cost:	\$4,866.614	100		N/A	\$4,866.614	100	<i>581.971</i>	<i>11.96</i>
Total Federal share:	1,350.692	27.75			1,350.692	-	39.682	0.82
Total FTA share:	1,300.000	96.25			1,300.000	-		
5309 New Starts share	1,300.000	96.25			1,300.000	-		
Total FHWA share:	50.692	3.75			50.692	-		
CMAQ	48.233	95.15			0	-		
Special Highway Appropriation	2.459	4.85			2.460	-		
Total Local share:	3,515.922	72.25			3,515.922		<i>542.289</i>	<i>11.14</i>
State share:	450.000	12.80			-			
Agency share:	3,065.922	87.20			-			
City share:	0	0			-			

(1) Updated to reflect Attachment 6 (Schedule of Federal Funds) from SAS FFGA

(2) Financial data provided monthly by MTACC. Revised cost estimate at completion received, however financing not included.

The FFGA budget included a contingency of \$629.0 million. The project contingency is distributed as follows:

- AFI's and AWO's (Design, Pre-bid and Construction) - \$441 million
- Executive Reserve - \$160 million
- Real Estate - \$ 17 million
- Rolling Stock - \$ 11 million

The Project Reserve contingency of \$160 million was renamed Executive Reserve and has not been allocated to date.

E. Technical Capacity Review

- Project Management Plan (PMP): Updated PMP (Revision 5) for the final design/construction phase of the project was conditionally approved by the FTA on March 22, 2007. Updated PMP (Revision 6) was submitted to FTA in March 2008.
- Project Quality Manual (PQM) Plan: Updated PQM (Revision 2) for the final design/construction phase of the project was approved by the FTA on March 28, 2007.
- Bus Fleet Management Plan (BFMP): Updated BFMP dated February 2007 was conditionally accepted by the FTA in May 2007.
- Rail Fleet Management Plan (RFMP): Updated RFMP conditionally approved by the FTA on April 24, 2007.

F. System Safety Review

- The New York State Public Transportation Safety Board (PTSB) is the State Safety Oversight Agency (SSOA). Biennial re-certification of NYCT's System Safety Program Plan (SSPP) was completed in July 2008.

G. Major Issues/Problems

- None.

Attachment A - Safety Checklist - Second Avenue Subway

Areas of Focus	Y/N	Status
State Safety Oversight Agency		
Does the state have a designated State Safety Oversight Agency (SSOA) as defined in 49 CFR Part 659?	Y	New York Public Transportation Safety Board.
If so, does the SSOA's authority extend to pre-revenue operations?	Y	Yes, all phases.
Has the SSOA established its System Safety Program Standards (SSPS)?	Y	Standards are based on the requirements of 49 CFR Part 659.
Has the SSOA received, reviewed, and approved the Grantee's System Safety Program Plan (SSPP)?	Y	Biennial re-certification was completed in July 2008 by the PTSB.
Does SSOA participate in Project Development? Participation includes things such as: review design documents; attend review meetings; and comment on the how the safety aspects of the project are being addressed.	Y	Reference section 2.2.7 of the SAS System Safety & Reliability Plan.
Has the SSOA performed a pre-revenue safety review of the Grantee's project?	N	No
System Safety		
Is the Grantee's overall Safety Program properly documented in its Project Management Plan (PMP)?	Y	See PMP Section 3
Do the Grantee's PMP and associated Safety Program include an appropriate safety policy adopted by its top management?	Y	By approving plan
Do the Grantee's PMP and associated Safety Program establish a specific organizational entity and/or individual responsible for the Safety Program?	Y	See PMP

Attachment A - Safety Checklist - Second Avenue Subway

Areas of Focus	Y/N	Status
Do the Grantee's PMP and associated Safety Program specify staffing requirements, procedures and authority for the safety activities?	Y	See PMP Section 3
Do the Grantee's PMP and associated Safety Program include a formal Safety Certification Program (SCP)?	Y	See PMP and SAS System Safety & Reliability Plan.
Do the Grantee's PMP and associated Safety Program include the development/use of a Safety Design Criteria Manual (DCM) or equivalent documents?	Y	See DCM Chapter 26 and SAS System Safety & Reliability Plan.
Has the Grantee developed and the SSOA approved the Grantee's SSPP? What is the status of this process between the Grantee and SSOA?	Y	Biennial re-certification was completed in July 2008 by the PTSB.
Is the Grantee implementing its Safety Program as defined in the PMP? Are the safety milestones being met? (Note: This assumes that the Safety Program is properly documented in the PMP.)	Y	See Project Schedule
Construction Safety		
Is the Grantee's Construction Safety Program (CSP) documented in the PMP?	Y	Included in the Construction Phase PMP.
Has the Grantee implemented its CSP?	Y	CSP is on-going. Toolbox meetings are held to acquaint personnel with the safety requirements as defined in the General Specification. MTACC and contractor's safety personnel and the OCIP representative continue to monitor the site for compliance. Safety is discussed at each Job Progress Meeting.

Attachment A - Safety Checklist - Second Avenue Subway

Areas of Focus	Y/N	Status
How do the Grantee's OSHA statistics compare to the national average for the same type of work? If the comparison is not favorable, what actions are being taken by the Grantee to improve its safety record?	-	The recordable incidents for the project (<i>through October 2008</i>) continue to trend below the national average (2.93 vs. 5.89). Lost time accidents (<i>through October 2008</i>) are trending above the national average (2.93 vs. 2.27). Retraining and safety meetings are ongoing.
Is the Grantee using wrap-up insurance on this project?	Y	Owner Controlled Insurance Program (OCIP) has been implemented. Insurance coverage by Allied North America, administered by Project Technologies International, LLC.
Is the Grantee using safety incentives/disincentives on this project?	Y	Ongoing.
Shared Track		
Does this project have shared track?	N	
Has the Grantee coordinated with FRA regarding waivers for shared track usage?	N/A	
Shared Corridor		
Does this project include shared corridor? Please describe the geography of the shared corridor.	N	
What is the Grantee doing to specifically address safety concerns in the shared corridor portion of the project?	N/A	

II. ACTION ITEMS – ITEMS FOR GRANTEE ACTION

Status of Action Items

The status of Action Items is shown in the following summary chart.

Note: Items marked with a “C” in the “PMO Contractor Status” column will be dropped from future reports.

Key Item

2. XX PMO CLIN 5 – Project Management Plan

3. XX PMO CLIN 3 – Project Monitoring

Legend

Priority (Pr)	Grantee Action	PMO Contractor Status
1 – Most Critical	D – Remedial Action Developed	R – Review On-going
2 – Critical	A – Remedial Action Approved	C – Completed - No further review required
3 – Least Critical	I – Action Implemented	

Items for Action

Pr	Item	Identification	Nature of Problem	Grantee Action			Comments	Status
				D	A	I		
2	CLIN 003 Sub Task 12.a SAS-A01-1007	Rent Stabilization Plan	FTA/PMOC has no information for MTA's Plan for Rent Stabilization.	Y	N	N	On April 16, 2008, MTA's SAS Relocation Plan was submitted for FTA review and approval. Section 3.3 of the plan addresses the loss of rent regulated apartments. <i>On October 8, 2008, the MTA published the Housing of Last Resort Plan, which describes how MTA proposes to provide assistance to dislocated residential tenants of the SAS project beyond the threshold set in the Uniform Act. This plan is an amendment to section 3.3 of the Relocation Plan. FTA/PMOC has completed its review and provided comments to MTA.</i>	R
1	CLIN 003 Sub Task 12.a SAS-A02-0208	Real estate challenges associated with entrance 3 at 72 nd Street Station	Two challenges were filed (State and Federal courts) with regard to the proposed relocation of entrance 3 of the 72 nd Street Station. The challenge filed in State Court has been dismissed. The challenge filed in Federal Court continues.	Y	N	N	The FEIS identified the location of entrance 3 within a building. The proposed location is on the sidewalk of the northeast corner of 72 nd Street. MTA's Real Estate is coordinating efforts with legal representatives of FTA Region 2 to resolve this issue. An alternative to the sidewalk entrance is being	R

Pr	Item	Identification	Nature of Problem	Grantee Action			Comments	Status
				D	A	I		
							investigated. On July 18, 2008, MTA advised FTA that an Environmental Assessment will be prepared for entrances options at East 72 nd and 86 th streets. On September 12, 2008 a draft Environmental Assessment Schedule was presented to the FTA Regional Office for review. FTA Planning will be monitoring the progress.	
2	CLIN 003 Sub Task 12a. SAS-A11-0808	Recovery Plan	MTACC needs to submit a Recovery Plan, pursuant to FFGA requirements, for FTA review and approval. Need to track the current budget against the FFGA budget and add financing costs as a line item to the Current Budget Summary.	N	N	N	<i>The Recovery Plan is anticipated in December 2008.</i>	R

Pr	Item	Identification	Nature of Problem	Grantee Action			Comments	Status
				D	A	I		
2	CLIN 003 Sub Task 12a. SAS-A13-0808	Increase in cost estimate and Contract Packaging Plan	Reasons/justifications for the budget increase of \$297 million from \$4.05 billion to \$4.347 billion must be provided to the FTA. What was it due to? What are the benefits resulting from adding \$297 million more to the budget and breaking into 12 contracts. Revised cost estimate in the Standard Cost Categories must be provided.	N	N	N	<i>Completion anticipated in December 2008.</i>	R
3	CLIN 003 Sub Task 12a. SAS-A14-0808	Track Alignment	Provide the FTA with estimated savings on going from 3 tracks to 2 tracks at 72nd Street and on the revised alignment. The Rail Fleet Management Plan should be updated.	N	N	N	<i>Completion anticipated in December 2008.</i>	R
2	CLIN 003 Sub Task 12a. SAS-A15-0808	FFGA Baseline Schedule	Combined the FFGA baseline schedule with the proposed schedule.	N	N	N	Anticipated completion date is being revised.	R
2	CLIN 003 Sub Task 12a. SAS-A16-0808	Risk Assessment	Risk Assessment Workshop needs to be scheduled.	N	N	N	FTA and PMOC are meeting in advance of the workshop in order to finalize the process.	R

Pr	Item	Identification	Nature of Problem	Grantee Action			Comments	Status
				D	A	I		
2	CLIN 003 Sub Task 12a. SAS-A17-0808	Rolling Stock Procurement	The decision to utilize 75 foot rail cars vs. 60 foot rail cars is being re-evaluated. MTACC should include the status of the procurement of rolling stock in its monthly reports and as an agenda item for future quarterly meetings.	N	N	N	<i>A decision is anticipated during the first quarter of 2009.</i>	R
2	CLIN 003 Sub Task 12a. SAS-A18-0808	Contingency Drawdown Curve	The change in the Contingency Drawdown Curve, particularly the latent contingency, needs to be clarified. Why \$80 million?	Y	N	N	<i>A revised Contingency Drawdown Curve will be developed based on the 12 Contract Packaging Plan.</i>	R
2	CLIN 003 Sub Task 12a. SAS-A19-0808	Schedule - Final Design and Real Estate	Final Design and Real Estate acquisition efforts should be reflected in an integrated schedule.	N	N	N	<i>Revised schedule is anticipated in December 2008.</i>	R
2	CLIN 003 Sub Task 12a. SAS-A20-0808	Additional Work Orders	The status log of Additional Work Orders should reflect MTACC's estimate of the cost and time impact.	Y	Y	N	MTACC's cost estimate is not being reflected in the Additional Work Order Status Log.	R

III. OBSERVATIONS AND CURRENT ISSUES

A. GENERAL AGENCY ASSESSMENT

MTA Capital Construction (MTACC) Company is a public corporation with a specific mission to plan, design and construct major current and future MTA system expansion projects, including the Second Avenue Subway (SAS) project. MTACC has engaged the services of a design consultant, DMJM+Harris and ARUP (DHA), and a consultant construction management services firm, PB Americas, to assist in its management of the project by supplementing MTACC staff. MTA's Real Estate Department is taking the lead in the acquisition of property required for the project.

In establishing its 2008 to 2013 Capital Program Budget (subsequent to the FFGA), MTA conducted a 30-day review of its expansion projects currently underway (SAS Phase 1, ESA, Fulton Street Transit Center, and the South Ferry Subway Station). The review was completed in February 2008 and resulted in three major actions: completion dates will be extended to allow for smaller contracts thus avoiding cost escalation due to single bidders on big contracts; project budgets will be increased to reflect market conditions; and the exploration of ways to mitigate rising cost without compromising the transportation benefits of the projects will be ongoing. SAS Phase 1 was impacted in that the ROD was revised from June 2014 to June 2015. The PMOC could not substantiate the revised ROD because an updated integrated schedule had not been developed.

The proposed 2008 to 2013 Capital Program Budget also shows a \$297 million increase in the total project cost. Details were subsequently provided in a revised integrated construction schedule and cost estimate received by the PMOC on July 21, 2008 and July 31, 2008 respectively. Both the schedule and cost estimate reflected a repackaging plan of 12 construction contracts. Allocation of the cost to the Standard Cost Categories (SCC) is still outstanding. At the FTA Quarterly Meeting held August 12, 2008, MTACC accepted the action item to provide the FTA with the reasons/justifications for the budget increase; what was it due to; what are the benefits resulting from adding \$297 million more to the budget and breaking into 12 contracts; and to provide the cost estimate in the Standard Cost Categories [Ref: SAS-A13-0808]. *During November 2008, the PMOC learned that MTACC is re-evaluating the contract packaging plan, leaning toward two contract packages for the 96th Street Station instead of three. Total scope will thus be allocated into eleven contract packages.*

The PMOC's analysis of the schedule, cost estimate and project scope will be addressed in the Risk Assessment which resumed in September 2008. *During November 2008, the FTA Regional Office and the PMOC held a series of meetings to finalize the strategy that will be utilized for the SAS Risk Assessment. Task assignments with associated budgets were established. Administrative, design, and quality procedures utilized by the SAS project were accumulated and made available to the Risk Assessment team.*

B. BUDGET/COST STATUS

The MTACC updated the SAS Project Phase 1 cost estimate to address the concerns noted during the 2007 Risk Assessment process. Adjustments were made to increase the unallocated contingency, real estate cost, and support an additional 6 months' float. The MTACC submitted the cost estimate and its various attachments to the FTA as required by the FFGA application.

This effort was based on having 6 contract packages. Total project cost was \$4,866,614,000 and was broken down into the SCC as shown in the chart below.

Standard Cost Category (SCC) #	Description	Year of Expenditure (YOE) \$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

Project Funding: On November 19, 2007, the FTA and MTA executed a FFGA in the amount of \$4,866,614,468, including finance costs. Total Federal participation is \$1,350,692,821 and Local participation is \$3,515,921,647. The table below lists the associated grants in the Transportation Electronic Award Management (TEAM) system with respective appropriated and obligated amounts as of *November 30, 2008*.

Grant Number	Amount	Obligated (\$M)	Disbursement (\$M) thru November 30, 2008
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	0
NY-17-X001-00	\$2,459,821	\$2,459,821	\$2,459,821
NY-95-X009-00	\$25,633,000	\$25,633,000	0
Total	\$203,688,170.00	\$229,321,170.00	\$35,877,870.00

Project Expenditures and Commitments: A total of \$581.971 million has been expended on the project through *November 2008*, including \$5.455 million on the Manhattan East Side Access (ESA) study and related FEIS work during the 1995-1999 Capital Program. (See Cost and Schedule Summary on page 24.)

Project Cost Management and Control: MTACC's work breakdown structure allows for effective monitoring, control, and reporting of project costs and expenditures. The PMOC will continue monitoring MTACC's budget control system during the final design, construction, and test phases.

Change Orders: Utilizing MTACC's *Additional Work Order Status Log*, the PMOC monitors the change order process monthly [Ref: SAS-A20-0808]. The table below shows the status of change orders for professional service and construction contracts approved as of *November 30, 2008*.

Professional Service/Construction	Total # of Approved Change Orders	\$ Value	% of Award Value
DHA (Contract Mod.)	2	\$6,915,218.00	4.82%
Contract C 26002	38 (3 credits)	\$6,198,912.00	1.8%

C. PROJECT SCHEDULE STATUS

On July 21, 2008, the PMOC was provided a revised integrated construction schedule (Rev 2.6 update 23-3.4) which reflected MTACC's 12 Contract Packaging Plan, and time extensions associated with additional work orders for contract C 26002 (tunnel boring). The scope of work has now been allocated into 12 contract packages versus the initial 6. The PMOC is concerned

about the delay in revenue service to June 15, 2015, which is one year past the baseline date in the FFGA, and the elimination of the 6 months of project float. As part of the Risk Assessment, the PMOC will perform a detailed review of the schedule in accordance with FTA guidelines. *An updated schedule is anticipated in December 2008.*

DHA's Integrated Design Schedule Rev 2.6 (update 28 as of October 31, 2008) reflects the current completion dates for the contract packages. At the August 12, 2008 FTA Quarterly Meeting, MTACC accepted an action item to provide a final design schedule which will also include the real estate acquisitions. Efforts are ongoing in the development of the schedule, which is anticipated to be available in December 2008. [Ref: SAS-A19-0808]

Skanska, Schiavone and Shea (S3)'s Critical Path Method (CPM) schedule Update No. 17R1 (through October 2008) was accepted. The schedule reflects delays and time extensions as a result of approved AWOs. *The current completion date is April 6, 2011, approximately 9 months beyond the contract completion date of July 20, 2010.*

D. DESIGN ENGINEERING STATUS

Design Management

MTACC awarded the Final Design (FD) of Phase 1 to DHA on April 18, 2006 at a value of approximately \$143.485 million (\$116.000 million FD and \$27.485 million construction phase design support). Two (2) contract modifications associated with investigation of cost savings, repackaging and various studies have been approved (\$6.915 million), bringing the contract value to \$150.401million. Working Group meetings are ongoing to support the final design of the outstanding contract packages. *Details of each contract package are presented below with final design completion dates as indicated in DHA's Integrated Design Schedule Update:*

- Contract -C 26002 (TBM Tunnels from 92nd St. to 63rd ST.) FD was completed in June 2006 (TBM Tunnels)
- Contract -C 26005 (96th Street Station Structure and Heavy Civil) FD was completed in February 2008.
- Contract -C 26010 (96th Street Station: finishes and installation of mechanical, electrical and plumbing equipment). *FD scheduled completion is July 30, 2010.*
- Contract -C 26015 (96th Street Station: utility restoration, construction of the above ground structure of the entrances and ancillary facilities, remaining invert slab, street, sidewalk and tree restoration). *FD scheduled completion is December 29, 2009.*
- Contract -C 26006 (63rd Street Station: upgrade involving open-cut excavation for the construction of entrance and ancillary facilities, removal and upgrade of the structural elements within the existing tunnel, and traction power connection to the Lexington Avenue Station on the Q Line). *FD is scheduled to be completed on June 11, 2009.*
- Contract -C 26007 (72nd Street Station: construction of the cavern and the G3/G4 tunnels to the existing 63rd St. /Lexington Avenue Station). *FD scheduled completion is September 17, 2009.* The width of the station cavern has been reduced as a result of the change from three tracks to two. FTA requested an estimate of the savings

expected from this change. *Estimate is anticipated in December 2008* [Ref: SAS-A14-0808].

- Contract -C 26011 (72nd Street Station: construction of ancillary finishes, installation of station finishes and mechanical, electrical and plumbing equipment). *FD is scheduled to be completed on December 31, 2009.*
- Contract -C 26014 (72nd Street Station: demolition of existing building and relocation of utilities that will prepare the site for construction). *FD is scheduled to be completed on September 23, 2009.*
- Contract -C 26008 (86th Street Station: construction of the station cavern, entrances and access shafts). *FD is scheduled to be completed on November 30, 2009.*
- Contract -C 26012 (86th Street Station: construction of the ancillary facilities and the installation of station finishes and the mechanical, electrical, and plumbing equipment). *FD is scheduled to be completed on March 10, 2009.*
- Contract -C 26013 (86th Street Station: utility relocation, open excavation and road decking that will prepare the site for construction). *FD was scheduled to be completed on November 24, 2008; however it has been delayed until December 19, 2008.*
- Contract 6 -C 26009 (Systems, Power, Signals and Communications; includes the installation of the low-vibration track, aluminum rail, way-side signals, and all communication components, integration of the communication network with the NEP SCADA system and commissioning the system for revenue service). *FD is scheduled to be completed on January 15, 2010.*

The SAS team stated at the February 2008 Quarterly Meeting that they have been coordinating their designs with the local BRT project to avoid duplication of efforts.

E. CONSTRUCTION STATUS

Construction Management

On May 31, 2007, MTACC awarded a contract to PB Americas to perform Construction Management services for Phase 1 of the SAS project. As Consultant Construction Manager (CCM), PB America will provide services for 91 months with a not-to-exceed value of \$80.9 million. PB's budget has subsequently been increased to \$91 million to support the 12 Contract Packaging Plan and various constructability reviews.

PB is playing an active role coordinating activities among the various agencies, the contractor (S3) and the SAS Project Team. S3 concerns are being addressed with action items being assigned and tracked for closure. Working Group and Job Progress Meetings are being held bi-weekly to keep all parties informed.

Tunnels from 92nd to 63rd Streets

Description: Contract C 26002 provides for the construction of tunnels between 92nd Street and the existing Lexington Ave. /63rd Street Station, using a Tunnel Boring Machine (TBM) and other mining methods. It includes all preparatory work for tunneling, such as utility relocation and construction of a launch box and two vertical shafts. It also includes preparatory work for the subsequent contracts, such as maintenance of electrical and other facilities. Contract C 26002

was awarded to S3 Tunnel Contractors (a joint venture of Skanska, Schiavone and Shea) on March 20, 2007 for \$337,025,000.

Schedule: Notice-to-Proceed was issued on March 20, 2007, with a July 20, 2010 completion date (duration 40 months). Relocation of the utilities on the west side of Second Avenue was completed in February 2008 approximately 3 months behind schedule. The delay was due primarily to the removal of unidentified utilities and a large sub-surface wall which were not on the plans. Lessons Learned from the west side utility relocation have been applied in the relocation of utilities on the east side.

MTACC accepted S3's Critical Path Method (CPM) schedule Update No. 17R1 (thru October 2008). The schedule reflects delays and time extension as a result of approved AWOs. The completion date is now projected for April 6, 2011, approximately 9 months behind schedule.

Construction Progress: *During November 2008, the contractor completed the installation of all 102 secant piles on the west side of Second Avenue between 92nd and 93rd Street. Five slurry wall panels between 93rd and 95th Streets were installed. To date, 17 of the 24 slurry wall panels on the west side of Second Avenue have been installed. Fabrication of the rebar cages for slurry wall panels W-5, W-14, and W-33 is in progress at the 102nd Street yard. Installation of the deck beams and precast decking continued between 91st and 93rd streets with a total of 37 beams installed to date. Hanging of the utilities from the decking is in progress.*

The contractor continued preliminary work at the vertical shaft sites (69th and 72nd Street). Excavation of the sidewalk continues (currently between 72nd and 73rd Street); installation of conduit for temporary traffic signals (70th and 72nd Street intersections) is in progress; foundations for light posts between 69th and 72nd streets were poured; and the temporary roadway between 69th and 70th Streets was completed.

Budget: The budget for Contract C 26002 is \$353,876,250. It is comprised of S3's bid price of \$337,025,000 plus a contingency of \$16,851,250. The contingency is 5% of the bid price and is allocated to cover additional work orders (AWOs). Total expenditure through November 30, 2008 is \$107,636,129. Thirty-eight (38) AWOs have been approved for a total of \$6,198,912. The contract is within budget with an estimate at completion of \$343,223,912 (bid price plus approved AWOs).

Quality: *During November 2008, the CCM's Quality Representative conducted the Monthly Construction Quality Meeting. Attendees include Quality representatives from the contractor (S3), design consultant (DHA), SAS project team and the PMOC. Among the items discussed at meeting were:*

- *Termination of Testwell Laboratories due to legal issues.*
- *Update of S3's Contractor's Quality Plan (review of Revision 3 by CCM's Quality Representative is underway).*
- *Quality Work Plans submittal for cold weather concreting and slurry wall installation.*
- *Low break reading for concrete placed by NYCON (nonconforming report to be generated).*
- *Audit of Bencor (Requested to provide calibration certificates).*

The PMOC has observed that this is an excellent communication tool to discuss accomplishments, upcoming events, requested actions, and problems encountered

Safety: S3 safety personnel and the OCIP representative continue to monitor the site for compliance. The public is kept abreast of the activity in the work area by message boards. *The recordable incidents for the project (through October 2008) continue to trend below the national average (2.93 vs. 5.89). Lost time accidents (through October 2008) are trending above the national average (2.93 vs. 2.27)*

96th Street Station

Description: Contracts C 26005, C 26010 and C 26015 provide for the construction of a new station at 96th Street and 2nd Avenue.

Schedule: Award Contract; C 26005 was advertised on March 10, 2008. On July 31, 2008, four offerers responded with technical and cost proposals. Reviews of the technical proposals were held on August 13 and 15, 2008. *Negotiations continued through November 2008 with Perini/Tutor Saliba subsequently being identified as the most responsive contractor. Board approval and award of the contract is anticipated by January 30, 2009.* Award Contract C 26010 January 2011; Award Contract C 26015 June 2010.

Construction Progress: N/A

Budget: N/A

Quality: N/A

Safety: N/A

63rd Street Station Rehabilitation

Description: Contract C 26006 provides for the rehabilitation of the existing Lexington Avenue/63rd Street Station to accommodate the connection to the SAS Line.

Schedule: Award Contract C 26006 June 2010.

Construction Progress: N/A

Budget: N/A

Quality: N/A

Safety: N/A

72nd Street Station

Description: Contracts C 26007, C 26011 and C 26014 provide for the construction of a new station at 72nd Street and 2nd Avenue.

Schedule: Award Contract C 26007 February 2010; Contract C 26011 January 2012; Contract 26014 November 2009

Construction Progress: N/A

Budget: N/A

Quality: N/A

Safety: N/A

86th Street Station

Description: Contracts C 26008, C 26012 and C 26013 provide for the construction of a new station at 86th Street and 2nd Avenue.

Schedule: Award Contract C 26008 July 2010; C 26012 October 2012; C 26013 April 2009

Construction Progress: N/A

Budget: N/A

Quality: N/A

Safety: N/A

Systems, Power, Signals, and Communication

Description: Contract C 26009 provides for the construction of the tracks, signals, traction power and communication network and equipment for the SAS Phase 1 stations. Also included is the integration of the communication network with the MEP SCADA system and commissioning the system for revenue service.

Schedule: Award Contract; C26009 June 2010

Construction Progress: N/A

Budget: N/A

Quality: N/A

Safety: N/A

F. PROCUREMENT AND CONTRACTING ACTIVITIES

Contract Packaging Plan: The scope of work associated with Phase 1 of the SAS Project was initially defined in 6 Construction Packages (contracts). The scope was then reallocated into 9 contracts as previously enumerated, but further divided into 12 packages as part of the MTA's latest Packaging Plan. MTACC took this action because contractors were having difficulty getting bonding on contracts valued greater than \$400 million. Contracts 2, 4 and 5 exceeded the \$400 million level. In February 2008, the PMOC was informed that MTACC was investigating the feasibility of reallocating the project scope into additional construction packages (value not to exceed \$300 million).

On March 21 and 22, MTACC held a Peer Review Workshop made up of senior construction personnel from both the SAS Team and outside industry. The purpose was to compare the 9 contract plan against a 13 contract plan that had been developed in February and March 2008, and determine the optimum number of contracts to minimize both market risk and construction risk. Although the workshop presented a 9 or 10 package plan to MTACC's upper management, it was not accepted. Based on MTACC's recent experience on other projects, a further reduction in contract package size was requested as a means of increasing competition and addressing the market risks during the risk assessment process. The SAS Team agreed on a 12 contract packaging plan, which was approved by MTACC upper management and submitted to the FTA

in July 2008. At the FTA's Quarterly Meeting held on August 12, 2008, MTACC accepted the action item to provide the FTA the benefits of breaking the scope into 12 contract packages [Ref: SAS-A13-0808]. *Completion of this action item is anticipated in December 2008.*

The PMOC has expressed its concerns regarding the additional coordination required as more contractors are brought on board, the number of contractors who would be required to work in the limited space and the possibility of additional claims if work areas are not available for follow-on contractors when scheduled. *During November 2008, the PMOC learned that MTACC is re-evaluating the splitting of the 96th Street Station into three contract packages (2A, 2B, and 2C). MTACC is leaning toward two packages (2A and 2B).* The packaging plan will be evaluated as part of the PMOC's Risk Assessment which resumed in September 2008.

Property Acquisition and Real Estate: MTA Real Estate is handling all real estate matters related to the SAS project and is responsible for acquiring the real estate interests needed for the project. MTA's real estate acquisition process is addressed in the Real Estate Acquisition Management Plan (RAMP) *and the SAS Relocation Plan.* The FTA gave conditional approval of the RAMP (dated May 2007) on November 15, 2007. Of concern were the issues of Just Compensation and Fixtures. The MTA submitted the revised RAMP at the beginning of March 2008 and FTA approved it with the understanding that it would be revised to reflect minor clarifications noted in FTA's letter dated March 20, 2008. On April 16, 2008, MTA's SAS Relocation Plan was submitted for FTA review and approval. Section 3.3 of the plan addresses the loss of rent regulated apartments [Ref: SAS-A01-1007].

At the February 7, 2008, Quarterly Meeting FTA was also informed that two challenges were filed (State and Federal courts) with regard to the proposed relocation of entrance 3 of the 72nd Street Station. The State Court dismissed the state challenge in May 2008. The challenge filed in Federal Court is under NEPA and names FTA, MTA, and DHA. The FEIS identified the location of entrance 3 within a building; the proposed location is on the sidewalk of the northeast corner of 72nd Street. MTA's Real Estate is coordinating efforts with legal representatives of FTA Region 2 to resolve this issue [Ref: SAS-A02-0208]. Subsequent investigation by DHA has identified an option which would eliminate the need to locate entrance 3 on the sidewalk. A bank of elevators in a building is being considered. This option was presented at a community board (Community Board 8) meeting in August 2008 and was favorably received. Environmental Assessment will be conducted for the location. On September 12, 2008, a draft Environmental Assessment Schedule was presented to the FTA Regional Office for review. FTA planning will be monitoring the progress.

Rolling Stock: The decision to utilize 75 foot rail cars vs. 60 foot rail cars is being re-evaluated. *A decision is anticipated during the first quarter of 2009.* At the August 12, 2008 FTA Quarterly Meeting, MTACC accepted an action item to include the status of the procurement of rolling stock in its monthly reports and as a agenda item for future quarterly meetings [Ref: SAS-A17-0808].

G. INTERAGENCY AND MASTER UTILITY PLANNING

Interagency and master utility planning is progressing as defined in Section 12 of the PMP. During Final Design coordination with utility providers to develop detailed plans for facility rearrangements and integration of these plans into the construction contract documents is ongoing. Bi-weekly utility coordination meetings at the construction field office of Contract C

26002 are being held. Work orders are being issued to secure the city's assistance to the project in the areas of public works engineering, and traffic engineering.

Among the major New York City agencies that will interface with the project are: New York City Department of City Planning (NYCDCP); New York City Fire Department (FDNY); New York City Department of Transportation (NYCDOT); New York City Medical Examiner; and New York City Department of Environmental Protection (NYCDEP).

H. SYSTEM SAFETY AND SECURITY

On November 15, 2007, the FTA approved the SAS Safety and Security Management Plan (SSMP), noting however, that there was a vacancy in the Director of System Safety and Security position. As of June 30, 2008, MTACC hired a field Security Manager for its East Side Access Project. This person will also work on SAS until both projects are active enough to justify a separate Manager for SAS. The Safety and Security Manager position is shown on the latest SAS Organization Chart as a matrixed resource from MTACC's VP, Program Control, Quality, Safety and Site Security's office.

On the SAS project, DHA's System Safety Manager is supporting the design efforts and CCM PB Americas Safety Manager is supporting construction efforts under the supervision of MTACC Chief-Quality and Safety. The SSMP is intended to provide an effective management process that applies the system safety and security discipline throughout design, construction, start-up, and operations and maintenance. The SSMP establishes the framework that the SAS Project will use to reduce hazards and vulnerabilities to the criteria specified in contract documents, as determined by MTACC.

I. RISK ASSESSMENT AND RISK MITIGATION

The SAS Project Team and the FTA's Risk Assessment Team have worked effectively in addressing issues, which could impact the success of the project. They have 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. On June 6, 2007 the PMOC forwarded the reports to FTA Headquarters for review. The PMOC will monitor the implementation of the Risk Management Program as the project progresses through the design, construction and test phases. The MTACC has identified and documented the risk mitigation initiatives in a scoping document for incorporation into the PMP. This document was reviewed by the PMOC and FTA with all concerns being resolved. The MTACC updated the PMP in February 2008, and sent an informal draft to the PMOC. A formal submission was made in March 2008. The Risk Assessment resumed in September 2008. *During November 2008, the FTA Regional Office and the PMOC held a series of meetings to finalize the strategy that will be utilized for the SAS Risk Assessment. Task assignments with associated budgets were established. Administrative, design, and quality procedures utilized by the SAS project were accumulated and made available to the Risk Assessment team. Mapping of the procedures to the various sections of the Project Management Plan was initiated.*

J. QUALITY ASSURANCE/QUALITY CONTROL

MTACC's Quality Manager for Second Avenue has implemented a Total Quality approach for monitoring the Quality Control and Quality Assurance activities on the Project. MTACC Quality Personnel audit both the Designer's and CCM's Quality programs; then the three groups (MTACC, Designer & CCM) audit the Contractors', Subcontractors' and Suppliers' Quality

programs. In addition, Contract C 26002 Quality Manager has a very ambitious Quality program that is scheduled 6 weeks into the future and lists the audits and inspections to be performed. The inspections follow the schedule of work to be performed in those 6 weeks. Materials being delivered for the work tasks are inspected prior to the work beginning and the quality of the work being performed is audited/inspected as it is being done. The status of Non-Conformance Notices and the responsibility to perform corrective actions is distributed monthly. Representatives from each quality organization meet every other week to address any quality concerns. The Quality Program is definitely proactive and doing proper oversight.

K. COMMUNITY RELATIONS

As part of its community relations program, MTACC continues to conduct extensive public and community outreach. They have placed message boards in the construction area to show the project's status and have posted a three week look ahead of construction activities and traffic updates on the SAS website. Interested members of the public can join the SAS mailing list, call the SAS Hotline (24 hours/7 days a week), send e-mails and attend the various community meetings. Weekly meetings are being held with business owners regarding opportunities to mitigate construction impacts and address any concerns. To keep the residents and merchants informed of the construction activity in the area of the vertical shafts (69th and 72nd), the installation of a message board is being considered. In the meantime, messages about the project are being posted in a local merchant's window.

TABLE 2 - COST AND SCHEDULE SUMMARY

Project	Cost (in Millions)					Schedule						
	Original Budget	Latest Estimate at Completion (EAC)	Percent (%) Difference (+ or -)**	Spent Through 11/30/08 (Funding Report)	Percent (%) Complete Planned Actual	Award/NTP Date	Original Completion Date*	Actual Forecasted Completion	Original Duration (Months)	Duration Percent (%) Difference (+ or -)**	Percent (%) Complete	
Contract 1 - Tunnel Boring S3 Joint Venture (\$337,025,000	\$337,025,000		\$107,636,129		31.9%	3/20/2007	9/20/2010	1/24/2011	46 months	N/A	
Contract 2 - 96th Street Station Name of Contractor	N/A											
Contract 3 - 63rd Street Station Name of Contractor	N/A											
Contract 4 - 72nd Street Station Name of Contractor	N/A											
Contract 5 - 86th Street Station Name of Contractor	N/A											
Contract 6 - Track and Systems Name of Contractor	N/A											
Contracts to Be Bid	\$2,231,975,000	\$2,483,975,000	252,000,000.0									
OCIP (Insurance)	\$160,000,000	\$169,000,000	9,000,000.0	\$85,380,603		50.5%						
TA Labor	\$28,000,000	\$28,000,000										
Engrg. Force Account	\$42,000,000	\$52,000,000	10,000,000.0	\$1,425,515		2.7%						
3rd Party Reimbursement	\$58,000,000	\$61,000,000	3,000,000.0	\$1,956,144		3.2%						
Artwork Allowance	\$6,000,000	\$6,000,000										
Preliminary Engr. & EIS	240,814,507	\$240,518,909	-295,597.8	\$238,146,297		99.0%						
Final Design	\$169,185,493	\$169,481,091	295,597.8	\$105,293,623		62.1%	4/18/2006					
Construction Mgmt.	\$86,000,000	\$91,000,000	5,000,000.0	\$4,267,370		4.7%	5/31/2007					
Rolling Stock	\$157,000,000	\$157,000,000										
Property Acquisition	\$245,000,000	\$245,000,000		\$31,218,526		12.7%						
Contingency	\$129,000,000	\$141,000,000	12,000,000.0	\$6,646,912		4.7%						
Project Reserve		\$6,000,000	6,000,000.0									
Executive Reserve	\$160,000,000	\$160,000,000										
Subtotal	4,050,000,000	4,347,000,000	297,000,000.0	581,971,120		13.4%						
Financing	816,614,000	-										
Totals	4,866,614,000	4,347,000,000	297,000,000.0	581,971,120		13.4%						

Attachment B - Summary of Concerns and Recommendations

The status of PMO Contractor Concerns and Recommendations is shown in the following summary chart.

Note: Items marked with a “C” in the “PMO Contractor Status” column will be dropped from future reports.

Key Item

Subtask 11A.XX **CLIN 0002** – Technical Capacity Review

Subtask 12A.XX **CLIN 0003** - Monitor Project Development and Implementation

Legend

Priority (Pr)	Category (Cat.)	Grantee Action (D A I)	PMO Contractor Status
1 – Most Critical	S1 – Scope	D – Remedial Action Developed	R – Review On-going
2 – Critical	S2 – Schedule	A – Remedial Action Approved	C – Completed – No further review required
3 – Least Critical	S3 – Safety/Security	I – Action Implemented	
	B – Budget	Y – Yes	
	Q – Quality	N – No	

Attachment B -Summary of Concerns and Recommendations

Pr	Item	Identification	Cat	Nature of Concern	PMO Recommendation	Grantee Action			Status	Status
						D	A	I		

There are no Concerns or Recommendations.