PMOC MONTHLY REPORT

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

December 2009

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

Urban Engineers of New York, P.C., 350 Fifth Avenue, Suite 6024, New York, New York 10118
PMOC lead person's name, affiliation, Richard F. Hill
Length of time on project: 5 years

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EXECUTIVE SUMMARY

1.0 PROJECT SCOPE

The Second Avenue Subway (SAS) Phase I project is 2.3 miles from 63rd Street to 105th Street. Its scope includes: tunneling; 3 new stations and 1 rehabbed station; ancillary facilities; track, signal, and electrical work; vehicle procurement; and all other subway systems necessary for operation from 96th Street to 63rd Street. It will connect at 63rd Street with the existing Broadway Line that extends to Lower Manhattan and Brooklyn. It will require 7 operating trains plus spares and is forecast to carry 191,000 passengers following the Revenue Service Day.

2.0 CHANGES SINCE 3RD QUARTER 2009

2.1 Engineering/Design Progress

The rewriting of the Contract 4B package, 72nd Street Station Cavern Construction, from an RFP Procurement to an IFB Procurement, was completed in December 2009. The PMOC recommends MTACC develop a contingency plan to address how to proceed if only one bid is received, since there would not be competition.

The 95% design of the following Contracts was completed on December 23, 2009 and sent to the Users for review and comment:

- 2B – 96th Street Station Finishes and MEP
- 4C – 72nd Street Station Finishes and MEP
- 5B – 86th Street Station Cavern Construction
- 5C – 86th Street Station Finishes and MEP

The Designer will incorporate the comments into the final package prior to submittal to NYCT Procurement.

2.2 New Contract Procurements

Contract 4B, 72nd Street Station Cavern Construction, was sent to NYCT Procurement and advertised December 21, 2009. SAS intends to combine Contract 4A, Building Demolition, with Contract 4B prior to taking bids.

2.3 Construction Progress

There were no new construction starts or milestones reached in December 2009. Contract 1, the TBM Contract, was able to strengthen the fragile buildings at 92nd Street and begin production Rock Blasting on November 18, 2009.

2.4 Continuing and Unresolved Issues

Agreement has not been reached between MTACC and the NYC DEP on Contract 5A, 86th Street Station Utility Relocation, installing a 48 inch water main or a 60 inch one. This is delaying the project and will affect the Critical Path of the IPS, if not made immediately.

2.5 New Cost and Schedule Issues

Contract 1's schedule was impacted by the delayed start of Rock Blasting at 92nd Street. SAS is working with the contractor to reduce the impact on the schedule from the blasting delay.

3.0 PROJECT STATUS SUMMARY AND PMOC ASSESSMENT

3.1 Grantee Technical Capacity and Capability

The Grantee's Technical Capacity and Capability did not significantly change from last Quarter.

3.2 Real Estate Acquisition

- The tenant relocations for 72nd and 86th Street Stations is progressing without any indication of possible issue. Thirty four tenants have been relocated of the forty eight total to be relocated.
- There are no legal challenges at this time, with none anticipated.

3.3 Engineering/Design

- Final Design was completed for Contract 4B, 72nd Street Station Cavern Mining. Four other packages reached 95 % complete, which is when the Designer is done Final Design and review comments from stakeholders remain to be made part of the package.
- All Systems are at 95% complete and are being incorporated into the System contract.
- Construction Support Services are adequate to the progress of the construction.

3.4 Procurement

- Contract 4B was advertised December 21, 2009
- The Pre-Bid meeting is set for February 8, 2010.

3.5 Force Account (support and construction)

- MTACC has established the project's Track Outage needs for the connecting to the existing NYCT systems at 63rd Street and gotten approval from the Operating Department for the required outages. This work will not be done until the latter stages of the project.

3.6 Third-Party Construction

- Contract 1's Construction progress lags behind the updated schedule by six and one half months. MTACC is working with the contractor to expedite his work to reduce the time lost. Contracts 2A and 5A also are late by 3 weeks and 5 weeks respectively. However, these contracts are not on the overall Critical path.

3.7 Vehicles

- The Rail Fleet Management Plan (RFMP) indicates that NYCT is planning to reduce its fleet spare factor, thereby requiring a lesser number of spares, based on less frequent inspections of new technology rail cars. It further states that because of this

reduction in fleet size, the vehicles to be purchased for the first phase of the Second Avenue Subway projects will no longer be required.

- With the reduction in the rail vehicle scope, the funding should also be reduced. The PMOC is concerned that the rail vehicle funding will be used to fund parts of the project that have experienced significant escalation, which is not the intent of the FFGA.

3.8 Systems Testing and Start-Up

- Development of the Systems Testing plan continues, with a planned completion date in March 2010.

3.9 Project Budget/Cost

- The FFGA Budget is $4.050 Billion as compared with the Current Working budget (CWB) of $4.673 Billion.
- The PMOC is awaiting a new SAS Budget that reflects the ELPEP numbers negotiated by FTA and the Grantee. A Variance Analysis will be performed on this new budget.
- Currently, the SAS Project has three projects under contract and is trending acceptably. However, once the major Mining Contracts are under way, the trending may change. The PMOC will monitor this aspect.

3.10 Project Schedule

- Critical Path Performance -- The current status of Contract 1, which is on the critical path and performing late, and the concern of TBM production can have a significant effect on the start of following contracts. Without the ability to recover lost time the Revenue Operations Date (ROD) could be impacted.

3.11 Project Risk

- During November 2009, MTACC strengthened three structurally unsound buildings at 92nd Street and Second Avenue to expedite getting the NYC Department of Buildings' approval to begin blasting in mid-November 2009.
- Following this problem, MTACC began a review of all unsound buildings for future contracts, so they can be strengthened as part of the construction work and preclude delaying the contracts.
- When MTACC performed the building support, they mitigated the problem by not waiting for the private property owner to act, which would have been a further delay.
- PMOC is awaiting receipt of the MTACC's Budget Contingency plan.
- PMOC is awaiting receipt of the MTACC's Schedule Contingency plan.
- ELPEP Commitments are being finalized.

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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

Status:

The organizational structural of the SAS project is still consistent with the structure defined in Section 2 of the PMP.

Observation:

The SAS project is being implemented through the coordinated efforts of various organizations and responsible parties who are working as an integrated team providing multiple levels of oversight. The team primarily includes staff from MTACC, NYCT, design consultant (DHA), and construction consultant management (PB America). The team also consists of other key support and oversight organizations such as the MTA.

To date, the Quality aspects of the Second Avenue Subway Project have been supported by a professional QA/QC team that stresses quality and controls it by continuous audits and checks. The SAS Director of Quality, who is retiring, has encouraged teamwork amongst all of the quality organizations on the project (MTACC, Designer, Contractors and CCM) and they work together for the good of the project. .

Concerns and Recommendations:

The PMOC is concerned with the departure of the MTACC Chief Quality, Safety and Site Security and the SAS Director of Quality at the same time. SAS Management is currently seeking replacements for these two positions. PMOC recommends that finding replacements be given the highest priority to minimize the time these positions would be unfilled. To assure quality continuity, consideration should be given to borrowing quality personnel from the Designer or CCM, until permanent qualified MTACC employees can be hired.

b) Staff Qualifications

Status:

Key individuals continue to meet the qualifications defined in Section 2.3.1 of the SAS PMP.

Observation:

The project team has a wealth of knowledge and experience from working on various capital projects.

Concerns and Recommendations:

None

c) Grantee Staffing Plan

Status:

Key positions are being staffed to support the release dates of the various contract packages.

Efforts are underway by the Grantee to assign a Construction Manager for the 72nd Street Station and to replace quality management personnel who have either retired or were transferred to another project.

Observations:

Adequate support is being provided for the various activities occurring during this phase of the project.

Concerns and Recommendations:

The PMOC recommends that the staffing plan be revised to reflect the Grantee's support of the extension of the design activity, replacement of quality personnel, and the delay in the construction progress.

d) Grantee's Physical Resources

Status:

There is no change this month.

MTACC and the design consultant staff are co-located to provide effective communication and decision making. Field offices have been established for each of the active construction contracts. As each construction contract is awarded, MTACC plans to open and staff field offices to support the construction management.

Observation:

The space and resources appear to be adequate to meet the current needs and objectives of the project.

Concerns and Recommendations:

None

e) History of Performance, Adequacy of Management Systems

Status:

No change from last month.

The SAS project is trending significantly behind schedule, and the current Estimate at Completion (EAC) is significantly higher than the FFGA Baseline Cost Estimate. The MTACC has revised the cost estimate to $4.803 Billion (excluding finance charges) and a project ROD of December 31, 2016. The FTA/PMOC is currently evaluating those revisions.

Observation:

FTA and MTA Executives are meeting to reach agreement on the budget and schedule to use going forward on this project.

Concerns and Recommendations:

The PMOC is concerned that additional slippage may occur if high mitigation measures are not implemented to avoid a potential loss of opportunities to mitigate risk. The critical path runs through the tunnel boring being performed under Contract 1, specifically the section that must be completed prior to the start of 86th Street Station mining. The PMOC recommends on-going monitoring of the implementation of the risk mitigation strategies.

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

a) Adequacy of Project Management Plan and Project Controls

Status:

The PMP will be updated to reflect the FTA/MTACC agreements reached during the risk review and documented in the Enterprise Level Project Execution Plan (ELPEP). *Editing of the ELPEP is in progress and is expected to be completed and approved in mid-January 2010.*

Observation:

Implementation of the agreement will give the FTA/PMOC greater visibility in determining if the Project is being effectively managed.

Concerns and Recommendations:

The PMOC is concerned that the Grantee might not update the PMP in a timely manner. *The PMOC recommends establishing workshops with the Grantee to acquaint them with the new processes in the ELPEP and to facilitate the update of the PMP.*

b) Grantee's Approach to FFGA and other FTA/Federal Requirements

Status:

No change this month.

On November 19, 2007, MTACC received a Full Funding Grant Agreement (FFGA) from the FTA. A provision of the FFGA requires MTACC to submit a Recovery Plan if the cost and schedule commitments would not be met. In early 2008, MTACC notified the FTA that the FFGA Baseline Cost Estimate of $4.050 billion (no financing cost) and ROD of June 30, 2014 will be exceeded.

Observation:

MTACC, FTA, and PMOC have been actively working to develop a process which will meet the intent of the various FTA/Federal requirements.

Concerns and Recommendations:

See section 1.1.2a

c) Grantee's Approach to Community Relations, Asset Management, and Force Account Plan

Status:

No change for this month.

As part of its community relations program, MTACC conducts extensive public and community outreach. The community relations representative supports the bi-weekly job progress meetings and makes known any concerns of the community that need to be addressed.

Observation:

MTACC continues to hold regular meetings with involved NYC Community Boards and has included them in much of the decision-making that affects local residents.

Concerns and Recommendations:

None

d) Grantee's Approach to Safety and Security

No change this month.

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

a) Uniform Property Acquisition and Relocation Act of 1970

No change this month.

b) Local Funding Agreements

Status:

No change this month.

Observation:

The Local Funding for the SAS project will be provided from the MTA's Five Year Capital programs. Because of the duration of the SAS project, several 5-year plans will be the source of Local Funding. *Local funds are available for the 63rd St. and 72nd St. Station contracts to be awarded in 2010.*

Concerns and Recommendations:

The PMOC is concerned about the availability of the local funds given that there is a $10 billion funding gap in the 2010-2014 Capital Program and that the latest Integrated Project Schedule shows a ROD of December 30, 2016. The PMOC recommends an FMOC review of the MTA's financial capacity to fund the SAS project (reference: Proposed MTA Capital Program 2010-2014, dated September 23, 2009).

1.1.4 Scope Definition and Control

Status:

The scope of the SAS Project is defined in the FEIS, ROD and the FFGA. The scope was subsequently allocated into eleven contract packages. The MTACC has recently decided to reallocate the scope of work for the 72nd Street Station into two contract packages instead of three, resulting in ten contract packages for the project. Technical Memorandum No. 5 (draft) which addresses changes to the 63rd Station entrances will be submitted for FTA review on January 19, 2010. A meeting is scheduled for January 26, 2010 with the community to solicit its inputs on the changes to the entrances.

Observation:

The process of utilizing the Configuration Control Board (CCB), the change control process, the Technical Advisory Committee (TAC) and issuing Technical Memorandums is effective in tracking scope changes. *Four Technical Memorandums have been issued to date.*

Concerns and Recommendations

None

1.1.5 Quality

Status:

Personnel working on the SAS Project have been trained and/or instructed in their organization's Quality Management System as it applies to their duties and responsibilities.

Observation:

The SAS Project Quality Manager has a dual reporting relationship within MTACC to both the SAS Program Manager and the MTACC Chief of Quality, Safety and Site Security. The SAS Project Quality Manager is delegated the authority for developing and implementing the Second Avenue Subway Quality Management System. *There is currently an acting Project Quality Manager.*

Concerns and Recommendations:

See Section 1.1.1c

1.1.6 Project Schedule

Status:

MTACC's Project Control unit is assigning a separate scheduler to the field office for each project under construction who will report both to MTACC Project Control (solid line) and to the SAS Project Manager (dotted line).

Observation:

This provides the field office with focus on the schedule and will act to hopefully alert the field team of potential delays before they become critical while having an independent view of project developments.

Concerns and Recommendations:

The PMOC is concerned that this critical position may not function as part of the SAS field team due to its connection to MTACC Project Controls. The PMOC recommends that MTACC Project Controls administer the schedulers but instruct them to take direction from SAS field management.

1.1.7 Project Budget and Cost

Status:

No change this month.

Total project cost in the approved FFGA was $4,866,614 million and was broken down into Standard Cost Categories (SCC) as shown in Table 1.

Table 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 2 lists the associated grants in the Transportation Electronic Award Management (TEAM) system with respective appropriated and obligated amounts as of *December 31, 2009*.

Table 2 – Appropriated and Obligated Funds

Grant Number	Amount ($)	Obligated ($)	Disbursement ($) thru *December 31, 2009*
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	*$146,036,132*
NY-17-X001-00	$2,459,821	$2,459,821	$2,459,821
NY-36-001-00*	$78,870,000	0	0
NY-95-X009-00	$25,633,000	$25,633,000	*$8,652,432*
NY-95-X015-00	$45,800,000	0	0
Total	$353,991,170.00	$229,321,170.00	*$190,566,434.00*

* Denotes American Recovery and Reinvestment Act (ARRA) funds

A total of $895,352,666 has been expended on the project through December 31, 2009, of which $381,214,630 has been spent on design and $256,227,252 on construction (MTACC's monthly financial input).

The project Estimate at Completion (EAC) is being revised upward as a result of the Risk Assessment.

Observation:

Local funds totaling $704,786,232 ($895,352,666 - $190,566,434) have been spent as of December 31, 2009.

Concerns and Recommendations:

See Section 1.1.3b.

1.1.8 Project Risk Monitoring and Mitigation

Status:

FTA, PMOC and MTACC have finalized the wording of the ELPEP, which contains the approved level of mitigation and the measures that must be taken to comply with the revised EAC and ROD. MTA approval is anticipated in mid-January 2010.

Observation:

The ELPEP will be integrated into the SAS PMP. The resulting PMP will be an effective tool for MTACC to manage the project and for the PMOC to monitor it.

Concerns and Recommendations:

See Section 1.1.2 a.

1.1.9 Project Safety

Status:

Daily toolbox safety meetings are ongoing. The Safety Manger for each construction contract reviews the upcoming work with the construction workers to assure that they understand the safety procedures that apply to the specific work. Whenever a worker is observed in noncompliance, the Safety Manager removes him from service and retrains him in the correct procedures. *The OSHA recordable incident rate for the project is 1.70 compared to the national average of 4.9. OSHA lost time accident rate is also below the national average as well (1.06 vs. 2.6).*

Observation:

SAS has an effective and proactive safety program. Safety is discussed at each construction Job Progress Meeting. MTACC and contractor's safety personnel and the OCIP representative continue to monitor the construction sites for compliance. *Any unsafe conditions noted are corrected immediately.*

Concerns and Recommendations:

None

1.2 FTA Compliance Documents

Status:

No change this month.

All documents required for approval of a FFGA were issued. As the project has advanced through different phases of development, decisions have been made which requires the PMP and RFMP to be updated. [Ref: SAS-A17-0808]

Note: Throughout this report, any [Ref: SAS-AXX] refers to the table in Section 7.1 and any [Ref: SAS-XX] refers to the table in Section 7.2.

1.2.1 Readiness to Enter PE

Entry into PE was approved by FTA on December 20, 2001; PE completed April 17, 2006.

1.2.2 Readiness to Enter Final Design

Entry into FD (Phase 1) was approved by FTA on April 18, 2006.

1.2.3 Record of Decision (ROD)

The ROD was issued on July 4, 2004.

1.2.4 Readiness to Execute FFGA

The FFGA was executed on November 19, 2007.

1.2.5 Readiness to Bid Construction Work

The start of the Construction Phase was authorized with the approval of an Early Systems Work Agreement (ESWA) on January 5, 2007.

1.2.6 Readiness for Revenue Operations

Revenue Operations per the FFGA was scheduled for June 30, 2014. Revenue Operations is currently projected for December 30, 2016 (Integrated Project Schedule).

2.0 PROJECT SCOPE

2.1 Status & Quality: Design/Procurement/Construction

2.1.1 Engineering and Design

Status:

Because of requested design changes by the user departments, city agencies and current standards, completion of final design will be extended to March 2010. These changes are reflected in DHA's Contract CM-1188 Modification Numbers 48 (signal changes) and 49 (miscellaneous changes). If Modification Number 47 is approved (platform edge doors) final design could be extended to December 2010.

Observation:

Various contract packages have progress through the design process to the 95% complete level and now will have to be modified to incorporate the changes.

Concerns and Recommendation:

The PMOC is concerned that the process to incorporate the required level of redesign to the 95% design packages is not reflected in the current design process. The PMOC recommends that the process be documented in one of the applicable Quality Implementation Procedure such as P8.5 -Preparation, Review and Approval of Drawings. The PMOC also recommends that an updated Final Design Schedule be prepared which incorporate the redesign effort.

2.1.2 Procurement

Status:

MTACC will utilize the Invitation for Bid (IFB) process for the procurement of Contract 3 (63rd Street Station), and Contract 4 A/B (72nd Street Station mining and heavy civil), in lieu of the Request for Proposals (RFP) process. Contracts 2B, 4C, 5B, 5C, and 6 will be per the RFP process. Award of Contract 3 is scheduled for October 2010 and Contract 4 A/B July 2010.

Observation:

MTACC has indicated that the change to the IFB process is driven by an improvement in market conditions. RFP procurement tends to reflect higher prices than IFB, and the procurement time is shorter for IFB.

Concerns and Recommendation:

The PMOC is concerned about the utilization of the IFB process for the 4B contract because of its estimated value ($550M). 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. The PMOC recommends that the MTACC develop a contingency plan if an insufficient numbers of responsive and responsible bids are received.

2.1.3 Construction

a) Third Party Contracts

No change this month.

b) Force Account (FA) Contracts

No change this month.

2.1.4 Operational Readiness

Status:

MTA has developed an Operations Plan for the SAS Project that was based on using 75-foot rail cars in revenue services. *A previous decision to utilize 60-foot rail cars is being reevaluated.*

Observation:

See Section 2.4

Concerns and Recommendation:

The PMOC recommends that the Concept of Operations Plan be updated to reflect any changes from the optimization effort which could affect the SAS project.

2.2 Third-Party Agreement

Status:

No change this month.

Interagency and master utility planning is progressing as defined in Section 12 of the PMP.

The liaison with the utilities continues to serve as the single point of contact for all matters involving utilities, services, city, state and federal agencies. Bi-weekly utility coordination meetings at the construction field office of the active contracts 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.

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.

Observation:

No change this month.

MTACC does not have any third-party agreements but works with the third parties and receives approval letters for the design of utilities, etc.

The major New York City agencies that interface with the project include: NYC Department of City Planning; NYC Fire Department, NYC Department of Transportation; NYC Medical Examiner; NYC Department of Environmental Protection and NYC Department of Buildings.

Concerns and Recommendation:

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. *Of particular concern is*

Contract 5A (48 inch water main vs. a 60 inch water main now being requested by NYC-DEP). This issue has escalated to the point that the President of the MTACC is now actively involved. The PMOC recommends the continuation of the Program Executive involvement in the resolution of such items and consider utilizing utility agreements on future projects.

2.3 Contract Packages and Delivery Methods

Status:

DHA is proceeding with the reallocation of the scope of work in Contract 4A into Contract 4B. This will reduce the package count to 10. The packages are as follows:

- Contract 1 - C 26002 (TBM Tunnels from 92nd St. to 63rd St.) *Delivery Method Request for Proposal (RFP)*
- Contract 2A - C 26005 (96th Street Station Structure and Heavy Civil) *Delivery method RFP*
- Contract 2B - C 26010 (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 finishes and installation of mechanical, electrical and plumbing equipment). *Delivery method RFP*
- Contract 3 - 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). *Delivery method IFP*
- Contract 4A - C 26014 (72nd Street Station: demolition of existing building and relocation of utilities that will prepare the site for construction). *Scope to be reallocated into Contract 4B*
- Contract 4B - C 26007 (72nd Street Station: construction of the cavern and the G3/G4 tunnels to the existing 63rd St. /Lexington Avenue Station). *Delivery method IFP*
- Contract 4C - C 26011 (72nd Street Station: construction of ancillary finishes, installation of station finishes and mechanical, electrical and plumbing equipment). *Delivery method RFP*
- Contract 5A - C 26013 (86th Street Station: utility relocation, open excavation and road decking that will prepare the site for construction). *Delivery method RFP*
- Contract 5B - C 26008 (86th Street Station: construction of the station cavern, entrances and access shafts). *Delivery method RFP*
- Contract 5C - C 26012 (86th Street Station: construction of the ancillary facilities and the installation of station finishes and the mechanical, electrical, and plumbing equipment). *Delivery method RFP*
- 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). *Delivery method RFP*

Observation:

The project scope has been allocated in a logical manner to the various contract packages to facilitate effective construction in support of the project schedule and budget.

Concerns and Recommendations:

See Section 2.2

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.

Observation:

In the FFGA for SAS Phase 1, there are 68 new 75-foot rail cars (including 12 spares) identified with an associated value of $157M. The draft October 2009 Rail Fleet Management Plan (RFMP) indicates that NYCT is planning to reduce its fleet spare factor, thereby requiring a lesser number of spares, based on less frequent inspections of new technology rail cars. It further states that because of this reduction in fleet size, the vehicles to be purchased for the first phase of the Second Avenue Subway projects will no longer be required. The Rail Fleet Management Plan needs to be updated to reflect what ever decision is made as a result of optimizing the NYCT rail fleet and infrastructure.

Concerns and Recommendation:

The PMOC has the following recommendations:

- *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 on-going state of good repair fleet replacement program, the cars financed under the SAS project are no longer needed.*
- *MTA should explain why they are considering removing the vehicles from the project scope without reducing the project funding. Reallocation of the budget for vehicles should be addressed in the revised EAC.*

2.5 Property Acquisition and Real Estate

Status:

There were 48 tenants requiring relocation at 72nd Street. To date, 30 have been relocated and the remaining 18 are in process. Two of the required cost-to-cure agreements have been signed by the owners and one other is expected to be signed soon. The FTA gave MTA approval for the outstanding appraisals on November 30, 2009.

Observation:

Currently, none of the remaining 18 tenants has indicated a reluctance to cooperate, but the PMOC will continue monitoring these efforts.

Concerns and Recommendations:

None at this time

2.6 Community Relations

Status:

MTACC is preparing to meet with Community Board 8 to get its approval of the final design for the entrance changes for the 72nd and 86th Street Stations. Technical Memo 5 requires community approval before being submitted to FTA.

Observation:

MTACC suggested they may submit a draft Technical Memo to FTA/PMOC to expedite the approval for the entrances, which is needed by March 2010.

Concerns and Recommendations:

None at this time

3.0 PROJECT MANAGEMENT PLAN AND SUB-PLANS

3.1 Project Management Plan

Status:

No change this month.

The approved PMP has been updated 6 times so far to incorporate the critical changes to date. As a result of the current risk review, a seventh revision will follow the Risk effort to capture any changes resulting from the Risk Re-look.

Observation:

The risk review uncovered several areas where the PMP did not fully provide the required information and management process. It is planned for the PMOC and MTACC to hold PMP workshops to supplement this document.

Concerns and Recommendations:

PMOC is concerned that MTACC may not appreciate the limited amount of time available to complete the PMP update as contained in the ELPEP. PMOC recommends beginning this process immediately.

3.2 PMP Sub Plan

No change this month.

- Project Quality Manual (PQM): 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 accepted by the FTA on April 24, 2007. In July 2009, NYCT decided to use a 60-foot rail car length for the SAS project and future procurements. The RFMP will be updated to reflect this decision.
- Safety and Security Management Plan (SSMP): On November 15, 2007, the FTA accepted the SSMP.
- Real Estate Acquisition and Management Plan (RAMP): On November 15, 2007, the FTA gave conditional approval of the RAMP.

3.3 Project Procedures

Status:

Appendix A, B and C in the PMP identify the applicable procedures being utilized on the SAS Project. *MTACC is currently working on a set of procedures (83) which will be utilized on all MTACC capital projects. Todate 18 procedures have been written.*

Observation:

The procedures utilized on the SAS project are generally those utilized by NYCT. The design consultant (DHA) utilized its own procedures.

Concerns and Recommendations:

The PMOC is concerned whether the new procedures will actually be utilized by the different operating agencies within the MTA given that NYCT will implement SAS and LIRR will implement ESA. The PMOC recommends that representatives from the different operating agencies be part of the team generating the procedures which would contribute to the acceptance of the procedures. The PMOC also recommends that a training schedule be developed to familiarize MTACC personnel with the new procedures.

4.0 PROJECT SCHEDULE STATUS

4.1 Critical Path Activities

Status:

Table below demonstrates the critical path and near critical path activities.

Table 1: Critical and Near Critical Path

Activity ID	Activity Count	Original Duration	Remaining Duration	Start	Finish	Total Float
WBS: C1 - TBM Tunnel & 96th Box (91st to 95th)	9	369	369	23-Nov-09	21-Apr-11	0
WBS: Construction - Tunnel	9	369	369	23-Nov-09	21-Apr-11	0
WBS: C3 - 63rd Street Station Upgrade	**2**	**170**	**170**	**14-Dec-09**	**9-Aug-10**	**-6**
WBS: C4 - 72nd Street Station	**29**	**1563**	**1563**	**2-Nov-09**	**28-Oct-15**	**21**
WBS: C5 - 86th Street Station	**98**	**1573**	**1573**	**18-Jan-10**	**28-Jan-16**	**3**
WBS: 86th Street Station Procurement + Construction	98	1573	1573	18-Jan-10	28-Jan-16	3
WBS: C6 - Systems	**10**	**1909**	**1909**	**15-Jun-09**	**4-Nov-16**	**0**
WBS: C6 - Systems Design	5	162	162	15-Jun-09	1-Feb-10	-11
WBS: System Procurement + Construction	5	249	249	24-Nov-15	4-Nov-16	0
WBS: NYCT Pre-Revenue Operation Test & Revenue Service	**2**	**85**	**85**	**5-Sep-16**	**30-Dec-16**	**0**
WBS: Revenue Service Date	**1**	**0**	**0**	**30-Dec-16**	**30-Dec-16**	**0**
WBS: Phase1 Substantial Completion	**1**	**0**	**0**	**30-Dec-16**	**30-Dec-16**	**0**

Status:

The critical path runs through the tunnel boring being performed under Contract 1, specifically that portion that must be completed and the TBM withdrawn prior to the start of 86th Street Station cavern mining. The critical path then runs through the systems installation then into the test and startup work.

Observation:

Critical path has been impacted by the inability of the contractor to use blasting for the excavation of rock. This has had a direct effect on the critical path of the project. *The stability of structures at 1766 and 1768 Second Avenue caused a delay to Contract 1 by prohibiting blasting in the TBM launch box. The building stabilization measures were developed and the contractor installed them and blasting was resumed but a delay to the project was encountered, which is being negotiated.* The MTACC is working with the contractor to alleviate some of the impact to the schedule.

Concerns and Recommendations:

PMOC is concerned that the time lost due to the inability to proceed with blasting will impact the Project. . In addition, PMOC concerns that IPS schedule doesn't get updated monthly, and MTACC's last IPS update goes back in March 2009, and finally 86th street and 72nd stations are 3 and 21 days away from critical path.

PMOC recommends MTACC encourage the tunneling contractor to expedite both the hard rock and soil excavation to make up time. The PMOC further recommends that the MTACC investigate the detailed relationships between construction contracts to determine a precise amount of handoff time. The strategy for the late performance of construction is to consume handoff duration downstream. Significant amounts of handoff could be consumed because of the late performance of Contract 1. *The handoff time is contingency time and should only be consumed in prescribed fashion, and finally PMOC recommends that the MTACC develops a new IPS to reflect the status of its construction and procurement status, and keep updating the IPS schedule monthly.*

4.2 Schedule Performance Analysis

Status:

Contract 1 schedule update 29 (Data Date November 1, 2009) shows the contract is behind the adjusted schedule by six and a half months (-128 WD). The adjusted schedule includes a negotiated 127 work day time extension to a substantial completion date of January 24, 2011. The time extension also extended Milestone #1 (turn over to 72nd Street Station) to April 5, 2010. *The current forecasted completion for Milestone #1 is October 5, 2010. The projected substantial completion date for Contract 1 is July 27, 2011.*

Contract 2A has an approved baseline schedule and is being monitored. The latest update number 6 (Data Date December 1, 2009) shows the project three weeks late. This is not a significant loss for this point in the construction project but it should be monitored closely. The Milestone #1 date of January 27, 2012 is currently projected to occur on February 17, 2010.

Contract 5A has an approved baseline schedule and is being monitored. The latest update number 4 (Data Date October 30, 2009) shows the project five weeks late. The Milestone #1 date of May 7, 2010 is currently projected to occur on June 4, 2010 and Milestone #2 date of December 8, 2010 is projected to occur on January 7, 2011.

Observation:

These milestone and completion dates for Contract 1 now appear to be optimistic.

Neither Contract 1 nor the IPS contains a binding milestone for the turnover of work from Contract 1 to the 86th Street mining contract 5B which is on the critical path of the program. This oversight has the potential to allow the critical path turnover to slip in time without any repercussions to Contract 1. As it stands now, Contract 1 has until substantial completion to turn over work to Contract 5B. This is a serious flaw in the approach to schedule control.

The MTACC is meeting the procurement cycle outlined in the IPS.

Concerns and Recommendations:

The PMOC is concerned that the project lacks a binding milestone or some other agreement for the turnover of work from Contract 1 to Contract 5B. The PMOC recommends that the MTACC

endeavor to establish a firm and committed agreement with Contract 1 to meet the IPS dates. This can be accomplished through the delay negotiations that are held with the contractor. Lacking any firm agreements, the MTACC can only rely on good faith efforts by the contractor.

The PMOC is also concerned that the TBM production rates and the cavern excavation production rates are at the top end of expected performance, and the failure to meet those rates can have significant impact to the schedule. Experience from other MTA Manhattan projects indicates that it is very difficult to maintain a high level of production for long periods of time. *The current status of Contract 1, which is on the critical path and performing late, and the concern of TBM production can have a significant effect on the start of following contracts. Without the ability to recover lost time the Revenue Operations Date (ROD) could be impacted.* The PMOC recommends that the MTACC should redouble efforts to work with the contractors to overcome construction difficulties expeditiously.

5.0 PROJECT COST STATUS FOR SECOND AVENUE SUBWAY

5.1 Budget/Cost Status

The FFGA baseline budget and current re-baselined budget is broken down into Standard Cost Categories in year of expenditure dollars as follows:

		SAS Proposed Budget		Delta
Category	Description	FFGA	February 2009	FFGA to Revised
		$ M	$ M	$ M
10	Guideway & Track Elements	$612	$769	$157
20	Stations, Stops, Terminals	$1,093	$1,392	$299
30	Support Facilities; Yards, Shops,	$0	$0.6	$0.6
40	Sitework, Special Conditions	$276	$420	$144
50	Systems	$323	$252	-$71
60	ROW, Land, Existing Improvements	$241	$292	$51
70	Vehicles	$153	$213	$60
80	Professional Services	$796	$886	$90
90	Unallocated Contingency	$556	$579	$23
	Subtotal	**$4,050**	**$4,804**	**$754**

Status:

No change this month.

5.2 Cost Variance Analysis

Status:

The last detailed cost variance analysis was performed by the PMOC on the MTA Budget issued in February 2009, which totaled $4.804 billion (exclusive of finance costs), which was approximately 19% higher than the FFGA budget of $4.05 billion (exclusive of finance costs). FTA and MTA Senior Executives are negotiating a new Budget number for SAS.

Observation:

Some of the large variances between the FFGA Budget and the February 2009 budget are in;

SCC 10 – Guideway & Track Elements - up by $157 million from FFGA

SCC 20 – Stations, Stops, Terminals - up by $299 million from FFGA

SCC 40 – Sitework & Special Conds. - up by $144 million from FFGA

SCC 50 – Systems - down by $71 million from FFGA

SCC 60 – ROW, Land, Existing Improvements - up by $51 million from FFGA

SCC 70 – Vehicles - up by $60 million from FFGA

SCC 80 – Professional Services - up by $90 million from FFGA

SCC 90 – Unallocated Contingency - up by $23 million from FFGA

Concerns and Recommendations:

The PMOC is concerned with the following:

- Contractor Indirect & Overhead Costs – application of percentage markups may not adequately address increases in contract durations
- Inadequate Contractor Profit & Risk
- Inadequate Pre-bid contingency applied to the 72nd St. Station Contract 4B
- Inadequate Post bid contingency applied to Contracts 1, 2A, 2B, 3, 4C, and 5C
- Inadequate consideration for market conditions as revealed in large overruns between engineer's estimates and awards.

As part of the Risk Assessment the PMOC recommends MTACC review and address the above concerns

5.3 Project Funding Status

Federal

No change from last month.

Total Federal participation is $1,350,692,821 (see Table 3 below)

Table 3 - Federal Funding	
Total Federal share:	**$1,350,692,821**
Total FTA share:	**1,300,000,000**
5309 New Starts share	1,300,000,000
Total FHWA share:	**50,692,821**
CMAQ	48,233,000
Special Highway Appropriation	2,459,821

Local

Status:

No change from last month.

MTACC has awarded a total 3 contracts in the amount of $696,095,039.

Observation:

With the additional authorized local funds provided in August 2009, the PMOC observes that the local funding is sufficient for contracts to be awarded in 2010.

Concerns and Recommendations:

See Section 1.1.3b

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. During January 2009, the PMOC was provided with the revised Integrated Construction Schedule and cost estimate.

Observation:

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 new schedule and cost estimate that will be acceptable to all parties

Concerns and Recommendations:

The PMOC is concerned that the amount of available local funding may be insufficient to support the new schedule developed under the risk process. The PMOC recommends an Financial Management Oversight Contractor (FMOC) review of the MTA's financial capacity to fund the SAS project.

6.2 Risk Updates

Status:

The PMOC performed a review of the revised cost estimate and schedule provided by the SAS project team in early 2009 and amended by MTA. The FTA and the PMOC then performed a risk based PG 47 review and provided an assessment of the risk range associated with the cost and schedule provided by the project team. A series of discussions were held to develop a project execution plan to help ensure that the SAS will minimize risk in the areas of focus for the FTA PG 47 document. This project execution plan was later applied to both of the MTA mega-projects, ESA and SAS in an Enterprise Level Project Execution Plan (ELPEP) which has been finalized for negotiations between FTA and MTA. This version will require update as a result of decisions made during the negotiation period. [Ref: SAS-A16-0808]

Observation:

Discussions between FTA and SAS/MTA to update the required levels of cost and schedule mitigation and contingencies that will be in place to protect the project are required, as part of the process to implement the ELPEP requirements.

Concerns and Recommendations:

Once a final level of contingency requirement has been established it will be incumbent upon the project to identify the mitigation and contingency sources and to protect against the realization of the identified potential project risks.

6.3 Risk Management Status

Status:

During December 2009, the FTA and the PMOC continued meetings with SAS-PMT and MTACC to finalize cost and schedule contingency details and other management processes. The

PMOC and FTA met with SAS-PMT and MTACC representatives to discuss the project cost estimate and schedule and the FTA Cost Risk Summary and PG47 documents to develop a mutual understanding of the risks identified in the FTA documents and to discuss the required project contingencies for cost and schedule.

Requirements for ELPEP compliance continue to be developed. The PMOC completed a review of Contract 4B Source Selection Plan and submitted a draft report to FTA-RII, however SAS will submit an additional SSP document for review due to the change from RFP to RFB for the Contract.

Observation:

During December 2009, the PMOC worked on the following Risk Assessment update activities:

- *continued review of grantee's compliance with 2006, 2007, 2008 and 2009 risk mitigation commitments; and*
- *continued to support FTA-RII with the PG47 review and PG47 and Cost Risk Summary Documents.*

The SAS project team has been cooperative in the development of requirements for support of the ELPEP, and the cost and schedule contingency curves. Separate meetings and follow-up regarding escalation and soft costs took place with follow-up information provided. Modifications to the Cost Risk Summary were generated based on the information provided.

Concerns and Recommendations:

The PMOC recommends that the SAS project ensures that there is sufficient mitigation capacity and/or contingency funding available to cover the impact of possible realization of identified risks. Specific recommendations for contingency and required improvements to project procedures are to be implemented over the next 9 months and tracked throughout the project.

6.4 Risk Mitigation Actions

Status:

During November 2009, MTACC strengthened the structural unsound building at 92nd and Second Avenue. Following the NYC Department of Buildings' approval, MTACC's contract was authorized to begin test blasting November 4, 2009 and full blasting in mid-November 2009.

Observation:

By having their contractor perform the initial strengthening work, MTACC reduced the potential delay to this contract and this will result in less escalation to the remainder of the project.

Concerns and Recommendations:

None

6.5 Cost and Schedule Contingency

a) Cost Contingency

Status:

The FFGA budget established an unallocated contingency of $555.554 million.

Observation:

The current amounts are within acceptable limits established in the Scoping Document attachment to the FFGA.

The PMT is in the process of re-baselining the project cost and schedule and will establish an FTA acceptable level of contingency as part of that effort in conjunction with finalization of the Enterprise Level Project Execution Plan.

Concerns and Recommendations:

The PMOC is concerned that SAS will not meet their cost contingency management goals, based on projections during recent discussions.

b) Schedule Contingency

Status:

The schedule contingency plans and details are awaiting finalization based on an agreement between the FTA and MTACC regarding ELPEP terms, conditions and commitments.

Observation:

The PMOC continues to support the FTA in discussions with MTACC, SAS project management and project staff to try to improve on the mutual understanding of the project schedule risks.

Concerns and Recommendations:

The PMOC recommends that the SAS project ensures that there is sufficient mitigation capacity and schedule contingency available to cover the impact of possible realization of identified risks. The PMOC has recommended a level of schedule contingency consistent with TCRP recommendations to be used in tracking the progress of the project to completion.

7.0 LIST OF ACTION ITEMS

7.1 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 Grantee Action

Pr	Item	Identification	Nature of Problem	Grantee Action			Comments	Status
				D	A	I		
2	CLIN 003 Sub Task 12a. SAS-A16-0808	Risk Assessment	Risk Assessment Workshop needs to be scheduled.	Y	Y	N	*During December 2009, the FTA and the PMOC continued meetings with SAS-PMT and MTACC to finalize cost and schedule contingency details and other management processes. The PMOC and FTA met with SAS-PMT and MTACC representatives to discuss the project cost estimate and schedule and the FTA Cost Risk Summary and PG47 documents to develop a mutual understanding of the risks identified in the FTA documents and to discuss the required project contingencies for cost and schedule.*	R
2	CLIN 003 Sub Task 12a. SAS-A17-0808	Rail Fleet Management Plan	*The Rail Fleet Management Plan needs to be updated to reflect what ever decision is made as a result of optimizing the NYCT rail fleet and infrastructure.*	Y	Y	N	*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.*	R

Items for Grantee Action

Pr	Item	Identification	Nature of Problem	Grantee Action			Comments	Status
				D	A	I		
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	Y	N	*The PMT is in the process of re-baselining the project cost and schedule and will establish an FTA acceptable level of contingency as part of that effort in conjunction with finalization of the Enterprise Level Project Execution Plan.*	R

7.2 PMOC 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	

Pr	Item	Identification	Cat	Nature of Concern	PMO Recommendation	Grantee Action			Comments	Status
						D	A	I		
1	CLIN 0003 SubTask 12.a SAS-04-0709	Launch box excavation potential delay	S2 S3	Excavation of the launch box has been impacted due to the structural condition of adjacent buildings on the eastside of Second Avenue.	MTA must work with the owners and NYCDOB to expedite a solution that will allow blasting for excavation.	Y	Y	*Y*	*The instability of the buildings at 1766, 1768 and 1772 Second Ave has been resolved. The buildings have been reinforced with the work being approved by the NYC Department of Buildings. Blasting was started in November 2009.*	R

ATTACHMENT A -- LIST OF ACRONYMS

AFI	Allowance for Indeterminates
ARRA	American Recovery and Reinvestment Act
AWO	Additional Work Order
CCM	Consultant Construction Manager
CPM	Critical Path Method
CPRB	Capital Program Review Board
DHA	DMJM+Harris and ARUP
DOB	New York City Department of Buildings
FD	Final Design
FEIS	Final Environmental Impact Statement
FFGA	Full Funding Grant Agreement
FTA	Federal Transit Administration
HLRP	Housing of Last Resort Plan
MEP	Mechanical, Electrical, Plumbing
MTA	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
ROD	Revenue Operations Date
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

APPENDIX B-- PROJECT OVERVIEW AND MAP

(Project Map sent separately)

Date: January 25, 2010

Project Name: Second Avenue Subway

Grantee: Metropolitan Transportation Authority

FTA Regional Contact: Mr. Hans Point de Jour

FTA Headquarters Contact: Mr. Dale Wegner

Scope

Description: The 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 current phase, Phase 1 of 4, will provide 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.

Guideway: Phase 1 is 2.3 miles long, from 63rd Street to 105th Street. It is a two-track project that is below grade in tunnels, and does not include any shared use track.

Stations: In Phase 1 there are: two new mined stations located at 72nd and 86th Streets, one new cut and cover station at 96th Street, and major modifications of the existing 63rd Street Station on the Broadway Line.

Support Facilities: There are no additional support facilities planned for Phase 1 of the project.

Vehicles: MTA envisions the need for eight-and-one-half train sets to satisfy the Phase 1 operating requirements (7) and to provide sufficient spares (1½).

Ridership Forecast: Upon completion of Phase 1, ridership is expected to be 191,000 per the MTA's Regional Travel Forecast Model.

Schedule

12/20/01	Approval Entry to PE	06/12	Estimated Rev Ops at Entry to PE
04/18/06	Approval Entry to FD	03/14	Estimated Rev Ops at Entry to FD
11/19/07	FFGA Signed	06/30/14	Estimated Rev Ops at FFGA
12/30/16	Revenue Operations Date at date of this report (MTA schedule)		
8.2 %	Percent Complete Construction at December 31, 2009		
32.3%	Percent Complete Time based on Rev Ops Date of 06/30/14		

Cost

3,839 M	Total Project Cost ($YOE) at Approval Entry to PE (w/o Financing Costs)
3,880 M	Total Project Cost ($YOE) at Approval Entry to FD (w/o Financing Costs)
4,866 M	Total Project Cost ($YOE) at FFGA signed (w/ $816 M Financing Costs)
4,673 M	Total Project Cost ($YOE) at Revenue Operations (w/o Financing Costs)
5,489 M	Total Project Cost ($YOE) at date of this report including $ 816 M in Finance Charges
895 M	Amount of Expenditures at date of this report from Total Project Budget of $2,137 M
19.2 %	Percent Complete based on Expenditures at date of this report
618 M	Total Project Contingency remaining (allocated and unallocated contingency)*

***** Being revisited as a result of the Enterprise Level Project Execution Plan

APPENDIX C – LESSONS LEARNED

Lessons Learned Table for 4th Quarter

#	Date	Phase	Category	Subject	Lessons Learned
1	Oct-09	Construction	Schedule	Delays to excavation caused by adjacent Fragile Buildings	The PMOC recommended and MTACC adopted a plan to review the stability of all of the buildings affected by the Second Avenue Subway project. MTACC instructed their Designer to review all the buildings along the project. Furthermore, they have the designer developing shoring plans for the fragile buildings and including this work in the future contracts. In this way the stabilization work cannot delay the contracts as it is part of the contract.
2	Nov-09	Construction	Schedule	3rd Party Utilities changed the size of an electric volt after construction began.	The PMOC recommended that MTACC get the utility companies to agree that once they have approved the plans, they cannot make major changes after award. MTACC's SAS Project Executive is meeting with the utilities to work out this problem.

APPENDIX D – PMOC STATUS REPORT

(This is a separate attachment covering both East Side Access and Second Avenue Subway projects)

APPENDIX E – SAFETY AND SECURITY CHECKLIST

Project Overview			
Project mode (Rail, Bus, BRT, Multimode)	Rail		
Project phase (Preliminary Engineering, Design, Construction, or Start-up)	Design and Construction		
Project Delivery Method (Design/Build, Design/Build/Operate/Maintain, CMGC, etc.)	Design/Bid/Build		
Project Plans	**Version**	**Review by FTA**	**Status**
Safety and Security Management Plan	7041.01.007308-0	11/15/07	Approved by FTA
Safety and Security Certification Plan			
System Safety Program Plan			
System Security Plan or Security and Emergency Preparedness Plan (SEPP)			
Construction Safety and Security Plan		N	Each construction contractor is assigned the responsibility for developing a Construction Safety and Security Program Plan, as defined in the Contract Documents,
Safety and Security Authority			
Is the grantee subject to 49 CFR Part 659 state safety oversight requirements?	Y		
Has the state designated an oversight agency as per Part 659.9?	Y		New York State Public Transportation Safety Board (NYSPTSB)
Has the oversight agency reviewed and approved the grantee's SSPP as per Part 659.17?	Y		Biennial recertification bue in July 2010
Has the oversight agency reviewed and approved the grantee's Security Plan or SEPP as per Part 659.21?			
Did the oversight agency participate in the last Quarterly Program Review Meeting?	N		
Has the grantee submitted its safety certification plan to the oversight agency?	N		
Has the grantee implemented security directives issues by the Department Homeland Security, Transportation Security Administration?			

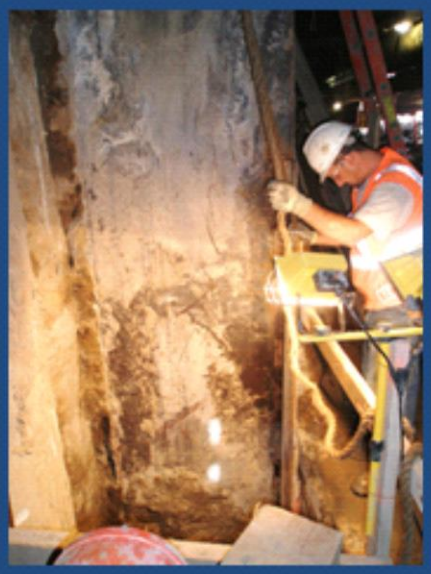
SSMP Monitoring	Y/N	Notes/Status
Is the SSMP project-specific, clearly demonstrating the scope of safety and security activities for this project?	Y	
Grantee reviews the SSMP and related project plans to determine if updates are necessary?	Y	
Does the grantee implement a process through which the Designated Function (DF) for Safety and DF for Security are integrated into the overall project management team? Please specify.	Y	
Does the grantee maintain a regularly scheduled report on the status of safety and security activities?	Y	Activity included in the monthly and quarterly reports from the grantee.
Has the grantee established staffing requirements, procedures and authority for safety and security activities throughout all project phases?	Y	Responsibilities during the design and construction phases identified
Does the grantee update the safety and security responsibility matrix/organizational chart as necessary?		
Has the grantee allocated sufficient resources to oversee or carry out safety and security activities?	Y	
Has the grantee developed hazard and vulnerability analysis techniques, including specific types of analysis to be performed during different project phases?	Y	Included in Appendix f of the SSMP
Does the grantee implement regularly scheduled meetings to track to resolution any identified hazards and/or vulnerabilities?		
Does the grantee monitor the progress of safety and security activities throughout all project phases? Please describe briefly.	Y	Three active construction contracts being daily monitored by the CCM with oversight being performed by the grantee.
Does the grantee ensure the conduct of preliminary hazard and vulnerability analyses? Please specify analyses conducted.	Y	Hazard and Vulnerability Analysis
Has the grantee ensured the development of safety design criteria?	Y	Included in SAS project Design Criteria Manual
Has the grantee ensured the development of security design criteria?	Y	Included in SAS project Design Criteria Manual
Has the grantee ensured conformance with safety and security requirements in design?	Y	Ongoing part of design review process

Has the grantee verified conformance with safety and security requirements in equipment and materials procurement?	Y	
Has the grantee verified construction specification conformance?	Y	Reference Section D3.4 Construction Criteria Conformance of the SSMP
Has the grantee identified safety and security critical tests to be performed prior to passenger operations?	Y	Reference Section D3.2 Certification Items List of SSMP
Has the grantee verified conformance with safety and security requirements during testing, inspection and start-up phases?	NA	Project is currently in the Design/Construction Phase
Does the grantee evaluated change orders, design waivers, or test variances for potential hazards and /or vulnerabilities?	Y	Part of formal configuration control process
Has the grantee ensured the performance of safety and security analyses for proposed work-arounds?	NA	
Has the grantee demonstrated through meetings or other methods, the integration of safety and security in the following: Activation Plan and Procedures Integrated Test Plan and Procedures Operations and Maintenance Plan Emergency Operations Plan	Y	
Has the grantee issued final safety and security certification?	N	
Has the grantee issued the final safety and security verification report?	N	
Construction Safety		
Does the grantee have a documented/implemented Contractor Safety Program with which it expects contractors to comply?	Y	
Does the grantee's contractor(s) have a documented companywide safety and security program plan?	Y	
Does the grantee's contractor(s) have a site-specific safety and security program plan?	Y	Reference sections 011150 Safety Requirements and 011160 Security Requirements of the Contract Terms and Conditions
Provide the grantee's OSHA statistics compared to the national average for the same type of work?	OSHA Recordable Rate is 1.70 OSHA Lost Time Rate is 1.06	National Average 4.9 National Average 2.6

If the comparison is not favorable, what actions are being taken by the grantee to improve its safety record?	NA	
Does the grantee conduct site audits of the contractor's performance versus required safety/security procedures?	Y	
Federal Railroad Administration		
If shared track: has grantee submitted its waiver request application to FRA? (Please identify specific regulations for which waivers are being requested)	NA	
If shared corridor: has grantee specified specific measures to address shared corridor safety concerns?	NA	
Is the Collision Hazard Analysis underway?	NA	
Other FRA required Hazard Analysis – Fencing, etc.?	NA	
Does the project have Quiet Zones?	NA	
Does FRA attend the Quarterly Review Meetings?	NA	

APPENDIX F – ON-SITE PICTURES

Launch Box SOE



93rd - 94th St: Exposing joint at Secant Pile/Slurry wall interface (left);
Excavation progress looking south (right)

Launch Box SOE

92nd – 93rd St: Installation of wale W-5 and associated struts (looking South)