PMOC COMPREHENSIVE MONTHLY REPORT

East Side Access (MTACC-ESA) Project
Metropolitan Transportation Authority
New York, New York

Report Period December 1 to December 31, 2012

PMOC Contract No.DTFT60-09-D-00007
Task Order No. 2, Project No. DC-27-5115, Work Order No. 03

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Length of time on project: Five years on project for Urban Engineers

TABLE OF CONTENTS

TABLES AND GRAPHS

APPENDICES

THIRD PARTY DISCLAIMER

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REPORT FORMAT AND FOCUS

This report is submitted in compliance with the terms of the Federal Transit Administration (FTA) Contract No. DTFT60-09-D-00007, Task Order No. 002. Its purpose is to provide information and data to assist the FTA as it continually monitors the grantee's technical capability and capacity to execute a project efficiently and effectively, and hence, whether the grantee continues to be ready to receive federal funds for further project development.

This report covers the project and quality management activities on the East Side Access (ESA) Mega-Project managed by MTA Capital Construction (MTACC) with MTA as the grantee and financed by the FTA FFGA.

MONITORING REPORT

EXECUTIVE SUMMARY

1. PROJECT DESCRIPTION

The East River tunnels in Manhattan are at capacity. The ESA project is anticipated to improve LIRR tunnel capacity constraints and enable the growth of the overall system. The project comprises a 3.5 mile commuter rail extension of the Long Island Rail Road (LIRR) service from Sunnyside, Queens to Grand Central Terminal (GCT), Manhattan, utilizing the existing 63rd St. Tunnel under the East River and new tunnels in Manhattan and Queens, including new power and ventilation facilities. The project includes a new 8 track terminal constructed below the existing GCT and a new surface rail yard in Queens for daytime train storage. Ridership forecast is 162,000 daily riders (27,300 new riders) in 2020. The project will provide increased capacity for the commuter rail lines of the LIRR and direct access between suburban Long Island and Queens and a new passenger terminal in Grand Central Terminal (GCT) in east Midtown Manhattan, in addition to the current connection to Penn Station in Manhattan.

2. CHANGES DURING 4th Quarter 2012

a. Engineering/Design Progress

As of November 30, 2012, MTACC reported that the Engineering/Design effort was 96.2% complete (on a cost invoiced basis). Details are provided in the Engineering/Design Section below.

b. New Contract Procurements

There were no new contracts procured during 4Q2012.

c. Construction Progress

Construction progress reached 47.8 % complete on a cost invoiced basis, as of November 30, 2012. Details for each of the contracts are provided below.

d. Continuing and Unresolved Issues

The PMOC remains concerned about the results of the CM012R bid. The lowest bid came in at approximately $350 million over the MTACC estimate. The solicitation was cancelled and MTACC is currently looking at ways to repackage the work with the hope of reducing the $350 million difference. The $350 million would reduce the current project contingency to about $190 million. MTACC acknowledges that they will not be able to fully recover this differential. In any event, the results of this solicitation will leave the ESA project with a significantly reduced budget contingency; which introduces a significant reduction in the project's ability to mitigate future cost risk events.

Although the current IPS shows a contingency drawdown of two months due to the results of the CM012R procurement, the PMT acknowledged that this is a placeholder until the actual impacts can be determined. The PMOC believes that the subsequent repackaging and re-solicitation of the work comprising that package will result in a much larger contingency drawdown. Since this contract was on the critical path and project contingency will be impacted beginning on January 1, 2013, it is highly likely in the PMOC's opinion that most, if not all of the 365 days of contingency will be used up for just this procurement; thus effectively eliminating the project's ability to mitigate future schedule delays.

Other critical procurements (CS179; CM014B, CH057) continue to trend behind schedule; with CS179 on the critical path and CH057 and CM014B near critical.

e. New Cost and Schedule Issues

ESA is not carrying any impacts to the costs or schedule for CM012R until it determines its new packaging strategy. As a placeholder, ESA has drawn down two months of schedule contingency, leaving ten months remaining. Cost impacts have not been addressed yet. Repackaging this work will possibly impact schedules of the Systems Package 1 (CS179) and GCT Concourse and Facilities Fit-out (CM14B) Contract packages.

3 PROJECT STATUS SUMMARY AND PMOC ASSESSMENT

a. Grantee Technical Capacity and Capability

Although there are no Technical Capacity and Capability issues related to the ESA Organization and staffing to report on at this time; other issues related to Technical Capacity and Capability are discussed later in the report.

b. Real Estate Acquisition

Details of the Real Estate acquisition activities pertaining to the 48th Street Entrance of GCT are provided in Section 2.6 of this report.

c. Engineering/Design

Progress for remaining design work continues to lag. The GEC and PMT continue to consistently miss all of its target dates for the remaining design activities on the project. In several instances (CM014B; CH057), this has resulted in delaying the procurement packages. Details are provided in Section 2.1 of this report.

d. Procurement

Several procurements are ongoing related to the CM012R and CS179 Contract packages and there are issues associated with these packages. Details are provided in Section 2.2 of this report. In addition, it should be noted that after the schedule re-baseline in 2011, the ESA PMT has not met any of its new schedule baseline dates for the four major packages that were to be procured in 2012 (CM012R; CS179; CM014B; CH057).

e. Railroad Force Account (Support and Construction)

At times in the past, both Amtrak and LIRR have experienced difficulty supplying sufficient Force Account personnel to support the ESA third-party contract construction effort. This situation was exacerbated during 4Q2012 as the railroads struggled to recover from the effects of Hurricane Sandy, which occurred in late October 2012. Electric Traction (E/T) and Communication and Signal (C&S) personnel from both railroads were unavailable to support ESA Queens Contracts during November and December 2012, as the railroads diverted them to assist with returning railroad operations back to normal. As a result, almost no project support was provided during the final two months of 2012.

On the other hand, the LIRR made a concerted effort to reconstruct its Westward Passenger Track in Harold Interlocking. This track project had been planned since early 2011 and scheduled and rescheduled on several occasions since then. Although not completely finished (the LIRR will return to install welded rail in the future), the track was returned to service in mid-December at the Maximum Authorized Speed of 60 mph, and represented a major LIRR Force Account accomplishment during 2012.

During the quarter, ESA also continued to work with Amtrak to finalize the F1 and F2 Interlocking cutover dates as part of the FHA02 agreement. Once the F1/F2 dates are scheduled, the Point Interlocking cutover date can be scheduled.

f. Third-Party Construction

Manhattan: The MTACC's latest IPS update for CM019 indicated that the Contractor's latest forecast for achieving Substantial Completion (SC) in June 2013 may be delayed by as much as 9 days as a result of slower than anticipated progress in the GCT 1&2 East and West Wyes and the Tail Tunnels. The Current ESA forecast for Substantial Completion by August 31, 2013 is not impacted.

CM013 contractor has experienced slow production rates on concrete placement over the last three months, resulting in a delay in completing Milestone #5 (Shaft Access) in December 2012 as planned. Contractor is currently forecasting completion of this milestone in January 2013.

The PMOC continues to be concerned with the schedule for switchgear fabrication and delivery on the CM014A contract. The MTACC Project office has advised the PMOC that there continues to be issues with LIRR and the GEC over the current performance requirements by LIRR of the switchgear. This issue is impacting completion of shop drawing submittal/approval, manufacture and delivery of all equipment by December 2012 required to support the May 2013 "power up" (note: this package was created to bring early power into both the caverns and the concourse area for both temporary construction power and final permanent power. There is an underlying concern that if power is not up on schedule, CM012, CM014B and CS179 contracts could be impacted).

The PMOC remains concerned that the ability of the CM004 Contractor to meet the revised substantial completion date may be jeopardized by several factors including: having to redo the shop drawings; and the fabrication and delivery of the building structural steel.

Queens: On the **CQ031 Contract (Queens Bored Tunnels and Structures)**, the contractor has been able to recover significant schedule time primarily based on advancing the WBBY work ahead of schedule. Based on the Contractor's performance to date, the PMOC believes that this contract will be completed in 1Q2013. Some minor delays may still be encountered, however, due to continued late completion of the CH053 work that may create some access and work zone conflicts with the CQ031 contractor. The CQ032 contractor did gain access to the CQ031 TBM launch area in December 2012, a delay of four months.

On the **CQO39 (Northern Boulevard Crossing) Contract,** sequential excavation method mining was completed in November 2012, almost 6 months later than originally planned. The contractor has commenced construction of the permanent tunnel liner structure. The PMOC is concerned about the continued delays to completion of this Contract, the additional costs incurred, and the impact of delayed access to the follow-on CQ032 contract.

On the **CQO32 (Queens Structures and Plaza Substation) Contract,** the contractor has made good progress during the first 12 months to August 2012 but is now starting to fall behind the planned completion goals due to work area turnover delays . Access restraints have been eased somewhat with the removal of the CM009/19 muck conveyor system in December 2012 and the turnover from CQ031 of the Queens Open-Cut excavation on December 28, 2012**.**

Harold Interlocking: Contract CH053 (Harold Interlocking, Part 1 and G.O.2 Substation): The PMOC notes that the reported construction progress has improved over the last several months and that this rate needs to continue to improve to meet the forecast SC date of February 5, 2014. At the November 2012 job progress meeting, however, the contractor stated that his forecasted SC date is July 29, 2014, 6 months later than the MTACC-ESA forecast date. The PMOC also notes that the continued late completion of the CH053 work is still creating some access and work zone conflicts with the CQ031 contractor.

Contract CH054A (Harold Structures Part 2A: The PMOC notes that the reported construction progress has shown improvement the last several months, although it is still trending behind schedule. The contract is currently not on the project critical path.

g. Vehicles

The first phase of the vehicle procurement is underway. Details are provided in Section 2.5 of this report.

h. Commissioning and Start-Up

A Quarterly Operational Readiness meeting was held on December 20, 2012. Details are provided in Section 2.4 in this report.

i. Project Schedule

Table 1 – Summary of Critical Dates

	FFGA	Forecast (F) Completion, Actual (A) Start	
		Grantee*	FTA**
Begin Construction	September 2001	September 2001(A)	September 2001(A)
Construction Complete	December 2013	August 2019	September 2019
Revenue Service	December 2013	August 2019	September 2019

* Source – Grantee forecast Revenue Operations Date per information presented to MTA CPOC on May 21, 2012

**Source – ELPEP baseline needs to be adjusted based on 2012 risk assessment results.

j. Project Budget/Cost

Table 2: Project Budget/Cost Table

	FFGA (as of December 18, 2006)			MTA's Current Baseline Budget (CBB) (November 30, 2012)		Expenditures as of November 30, 2012	
	($ Millions)	(% of Grand Total Cost)	Obligated (Millions)	($ Millions)	(% of Grand Total Cost)	($ Millions)	(% of CBB)
Grand Total Cost	**$7,386**	**100**		**$9,824**	**100**	$4,124.5	42.0
Financing Cost	$1,036	14.0		$1,116	11.4	$417.9	4.3
Total Project Cost	$6,350	86.0	$4,107	$8,708*	88.6	$4,542.4	46.2
Federal Share	$2,683	36.3	$1,148	$2,699	27.5	$1,836.0	18.7
5309 New Starts share	$2,632	35.6	$1,098	$2,436.6	27.6	$1, 578.6	16.1
Non New Starts grants	$51	0.7	$50	$67	0.8	$62.0	0.6
ARRA	0	0	0	$195.4	2.2	$195.4	2.0
Local Share	$3,667	49.6	$2,959	$6,009	61.2	$2,706.4	27.6

* CBB represents current MTA Board approved $8,245 million budget [redacted].

k. Project Risk

The MTACC Risk Management Plan (RMP), Rev. 2.0 dated July 2012, a sub-plan within the ESA Project Management Plan (PMP), has been updated to bring it into conformance with the ELPEP principles and requirements and to incorporate FTA/PMOC comments. It is currently under review by the PMOC.

MONTHLY UPDATE

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

ELPEP COMPLIANCE SUMMARY

The current status of each of the main ELPEP components is summarized as follows:

- **Technical Capacity and Capability (TCC):** The PMOC has completed its review of the Candidate Revisions for the ESA-PMP and discussed them with the FTA Region II Office. MTACC issued ESA PMP Revision 8.1 on September 27, 2012 and is planning to issue Revision 9.0 by June 30, 2013. The PMOC has completed its review of Revision 8.1 of the PMP and will provide its recommendation to the FTA Region 2 Office in January 2013. MTACC has stated that it has implemented the PMP training process. The PMOC will conduct an audit of this process during 1Q2013 through the ESA Quality Manager.
- **Risk Mitigation Capacity Plan (RMCP):** FTA-RII provided its conditional acceptance of the RMCP in its May 24, 2012 letter to MTACC. Final acceptance is based on incorporation of the RMCP into the RMP, currently under review by the PMOC.
- **Conformance and Compliance:** MTA's final conformance and compliance document, the ELPEP Whitepaper, was completed and submitted to FTA-RII. In its May 30, 2012 letter to MTACC, the FTA acknowledged that ESA was in conformance with the ELPEP requirements. The PMOC will begin reporting the project's continued ELPEP compliance based on the PMOC's review of the 4Q2012 performance; see below.
- **Risk Management Plan (RMP):** MTACC submitted Rev. 2 of the RMP, which addressed previous FTA/PMOC comments in August 2012. The PMOC will complete its review of the RMP in January 2013.
- **Continuing ELPEP Compliance**
  - Management Decisions
    - Outcome: Program and project level decisions made at appropriate level within MTACC management.
    - Status: Improvement noted in elevating certain issues to higher level for those having potential significant impact. Monthly MTACC/FTA/PMOC Executive Meeting provides venue for discussion of key issues.

- Design Development
  - Outcome: Stakeholder participation in design review process. Dedicated Amtrak liaison and consultant firm performed QA on E/T design.
  - Status: Process is effective but slow; milestones often missed.
  - Example: Amtrak approval of E/T design still missing milestones. IMPROVEMENT NEEDED.
- CCC Process and Results
  - Outcome: CCC approval for changes that may impact project schedule and cost must be approved by committee. CR process also implemented in CCC.
  - Status: All scope shifts among construction contracts are being presented to the CCC for review and approval.
  - Performance is adequate.
- Stakeholder Management
  - Outcome: Stakeholder participation in schedule re-baselining meetings and risk workshop. Coordination with stakeholders for outages and resources (force account meetings).
  - Status: Coordination with railroads with regard to force account support and force account construction has improved over time based on experience to date and railroads' efforts to increase their management oversight of ESA activities. Continued improvements are still needed.
  - Example: Construction Progress on Contracts CH053/54A needs to accelerate. IMPROVEMENT NEEDED.
- Issues Management
  - Outcome: Monthly executive meetings with FTA/MTACC to discuss issues.
  - Status: Also includes FTA Quarterly Review Meetings, last held on November 8, 2012; last executive meeting held on September 14, 2012.
  - Performance is adequate.
- Procurement
  - Outcome: Decision to use IFB or RFP made by MTACC based upon scope of work and type of procurement.
  - Status: Decision process for procurement methodology has improved in 2012, however additional improvement is needed.
  - Example: MTACC has still not made a firm decision as to what the procurement methodology will be used for the CS284 (Tunnel Systems) package.
- Timely Decision Making
  - Outcome: Project scope, schedule, budget continuously directed and controlled by administrative and management processes.

- Status: Overall performance is adequate; additional focus on decision timing with regard to issues outcome would enhance this process.
- Performance is adequate.

- Risk Informed Decision Making
  - Outcome: Project risk management team decides on mitigation measures/actions for risks identified in risk register.
  - Status: Risk reviews are completed for bid packages; risk register updated on routine basis; significant risks identified and monitored.
  - Example: MTACC needs to initiate regular risk meetings with FTA PMOC as committed to in 2Q2012. IMPROVEMENT NEEDED.

The ELPEP Quarterly Review Meeting with MTACC, FTA-RII and the PMOC was held on December 12, 2012. The current ELPEP compliance checklist completed by MTACC was reviewed, and the FTA and PMOC will provide their input and review comments by mid-January 2013. The next ELPEP Quarterly Review Meeting is scheduled for March 13, 2013.

1.0 GRANTEE'S CAPABILITIES AND APPROACH

1.1 Technical Capacity and Capability

a) Organization

There are currently no issues to report pertaining to the MTACC organization.

b) Staffing

There are currently no issues to report pertaining to ESA staffing.

1.2 Project Management Plan

a) History of Performance

ESA presented its latest baseline cost and schedule baseline to the MTA Capital Program Oversight Committee (CPOC) in May 2012. These baselines have been risk adjusted, resulting in a risk adjusted budget of $8.24B [redacted] and a projected RSD in August 2019. This is the second re-baselining effort undertaken by ESA since the FFGA.

b) PMP

MTACC finished developing all the necessary revised procedures required to support Revision 8.1 of the Project Management Plan (PMP) in 3Q2012. The PMOC is reviewing this PMP revision, which was received on September 27, 2012 and will provide its recommendations to the FTA in January 2013.

1.3 Project Controls

a) Schedule

The ESA-PMT issued the IPS #42 with data date of December 1, 2012. This schedule has an RSD of September 1, 2019, with 299 calendar days (10 months) of contingency.

b) Cost

The Cost Management Plan (CMP) needs to be revised to reflect changes resulting from the May 2012 project re-baseline effort [redacted]

1.4 Federal Requirements

a) FFGA

As a result of MTACC's cost and schedule re-baseline effort in 2011/2012 and the independent risk assessment completed in May 2012, MTACC presented a new budget and RSD to the MTA Capital Program Oversight Committee on May 21, 2012: $8.24 billion (w/o vehicles and financing). Through the fall of 2012, MTACC continued to work with FTA Region II to finalize documentation for the FFGA Amendment that will reflect the changes to the Baseline Cost Estimate and Baseline Schedule. However, at the FTA Quarterly Review Meeting held on November 8, 2012, the FTA Deputy Administrator notified MTACC that review of the ESA FFGA Amendment would be placed on hold until MTACC informs the FTA, in writing, of the cost and schedule impacts of the CM012R bids being significantly higher than the ESA budget as well as the MTA's strategies, going forward, for mitigating the impacts of this issue. At the December 12, 2012 special briefing to FTA-RII by MTACC on the CM012R situation, the

MTACC president said that MTACC's analysis of the cost and schedule impact to the ESA project budget will not be completed until January 2013, prior to presentation at the January 2013 CPOC meeting. MTACC noted that an anticipated 7-8 month delay is likely but could be even greater. MTACC indicated that it is anticipating a savings of up to $150 million as a result of repackaging the CM012R scope of work. The PMOC believes that this savings estimate is extremely optimistic, given the past results of repacking efforts by the ESA PMT.

b) Federal Regulations

There are currently no issues to report with regard to the Uniform Property Acquisition and Relocation Act of 1970 or Buy America/Ship America requirements. For Buy America, ESA has created a Buy America checklist for new contracts and a template for contractors to track BA shipments.

1.5 Safety and Security

a) SSMP

The Safety Certification Committee met on November 20, 2012 to review and approve the following design packages: CM004; CM014; and CM013 "C". These packages were signed-off on by the Committee. The PMOC attended this meeting and informed the MTACC Director of Safety that there is no longer a CM013 "C" package and that CM014 was split into separate packages quite some time ago. The Director stated that he was not going to change anything, but the meeting minutes would capture the PMOC's recommendation. By allowing this to go uncorrected, the PMOC believes that it will make traceability difficult in the later stages of the certification process, resulting in a delay in the process.

The PMOC is concerned about the fact that personnel assigned to the Safety Certification Committee are continually changing; thus hampering the continuity and effectiveness of the Committee. The PMOC is also concerned that the Safety and Security Committee has not met on a regular basis as per the ESA SSMP. This lack of regular meeting will hamper the effectiveness of the Committee in coordinating activities related to the Safety Certification Process. The PMOC has expressed its concerns to the MTACC Safety Director. The PMOC recommends that the Safety Certification Committee produce a calendar for regularly scheduled meetings and adhere to it. The PMOC also recommends that the MTACC Safety Director stress the need to maintain a stable committee to all of the participating stakeholders having representation on the Committee. [Ref: ESA-96-Sep12]

b) Project Performance

Project safety statistics for lost time accidents continue to trend above the Bureau of Labor Statistics (BLS) national average at 2.47 vs. 2.20 lost time accidents per 200,000 hours. Although there has been some improvement in the overall project safety statistics (2.47 vs. 2.50 during last reporting period); several contracts continue to perform below the average for the project: for the CM009 contract, the lost time accidents continue to trend above the ESA Program average (2.81 vs. 2.47 lost time accidents per 200,000 hours). For the CM004 contract, the lost time accidents are trending above the ESA Program average (3.82 vs. 2.47 lost time accidents per 200,000 hours). On the CQ039 contract, the lost time accident statistics continue to trend well above the ESA Program average (5.33 vs. 2.47 lost time accidents per 200,000 hours). ESA had no significant security issues to report during December 2012.

1.6 Project Quality

a) ESA Project Quality Manual (PQM)

The current version of the ESA Project Quality Manual (PQM) is Revision 6, issued in February 2009. The PMOC notes that although there is no requirement for periodic revisions to this document and the last revision was accepted; it is good practice to periodically update this document to reflect changes that have been implemented in the ESA Quality System since then. During a discussion with the ESA Quality Manager and the PMOC in September 2012, the ESA Quality Manager agreed to revise the PQM by the end of 2012; however this date was not met. The current commitment is to revise the PQM by the end of February 2013. This issue will remain open until the PQM is revised and submitted to FTA/PMOC. [Ref: ESA-93-Sep 12]

b) Project Performance – Quarterly Quality Oversight (QQO)

The PMOC attended four QQO's that were conducted on six contracts (CH053 and CH054A; CM009 and CM019; CQ031; and CQ032) during the fourth quarter of 2012. As a result of a recommendation from the PMOC, three of the four QQO's were conducted by an independent quality engineer who did not regularly support the contract that was audited. The only significant finding was that as-builts were not being submitted on the CH053 and CH054A contracts in accordance with contract requirements. To resolve this issue, the ESA Quality Manager scheduled an as-built surveillance on these two contracts for January 11, 2013. The PMOC has been invited to attend this surveillance. [Ref: ESA-100-Dec 12]

1.7 Stakeholder Management

a) Railroads

In coordination with Amtrak and LIRR, more weekend outages took place in the Harold Interlocking with a focus on the installation of catenary and signal towers. If the current outage schedule can be maintained, the CH053 and CH054A contracts should be able to complete the catenary installation in early 2013.

b) Others

No other coordination efforts to discuss for this quarter.

1.8 Local Funding

a) MTA/New York State (Capital Plan)

The MTACC announced at the May 2012 CPOC meeting that an additional $720 million will need to be identified in the MTA 2015 – 2019 Capital Plan to cover the new project baseline budget.

b) Other Sources

The total Federal funding commitment as of November 30, 2012 remained at $2.699 billion, as indicated in Table 2 in the Executive Summary.

1.9 Project Risk Monitoring and Mitigation

a) Risk Management Plan

The MTACC Risk Management Plan (RMP), Rev. 2.0 dated July 2012, is a sub-plan within the ESA Project Management Plan (PMP). The RMP was updated to bring it into compliance with

the ELPEP principles and requirements. MTACC has incorporated FTA/PMOC review comments into the RMP, Rev. 2, which is currently under review by the PMOC. The ESA-PMT has advised that the project is following the processes included in the RMP and the associated procedures although the PMOC has not observed the process directly. The PMOC will confirm that the project is using the RMP processes through review of the risk related project documentation. The PMOC notes that the risk informed management decision-making process detailed in the ELPEP has become a standard routine that is included in all management activities throughout all the project phases.

b) Monitoring

The PMT monitors the risk management process through the use of the project Risk Register and updates of the Contract Issues Log, key management tools that tracks the status of discreet risks and specific attributes regarding contracts impacted, probability, potential cost and schedule impacts, and identified mitigation strategies. The Risk Register is regularly updated with individual risks refreshed based on criticality and level of severity with high impact risks being reviewed by the ESA PMT monthly. The PMOC notes that the ESA Project Risk Manager actively and routinely maintains the Risk Register updated in accordance with the RMP. The MTACC committed that ESA would hold monthly risk meetings with the PMOC to review current risk related activities at the end of 2Q2012. To date, MTACC has not scheduled the initial kick-off meeting although it has been promised numerous times. This is a continuing concern, which the PMOC continues to bring up to MTACC. The PMOC continues to recommend that these meetings be established as soon as possible [Ref: ESA-97-Sep12].

c) Mitigation

MTACC actively seeks to identify and mitigate risks that may adversely impact the project cost and schedule performance. Mitigation measures are developed in conjunction with construction managers, design engineers and other PMT personnel as well as outside project stakeholders as required. Proposed mitigations are reviewed through defined processes to confirm the effectiveness of the mitigation especially with respect to the cost and schedule benefits. Approval of proposed scope changes to mitigate risk is obtained through the Change Control Committee (CCC) process and a defined sign-off procedure. The PMOC notes that the CCC actions routinely include review and approval of risk mitigation measures such a work scope transfers between contracts. The ESA Project Risk Manager meets with the ESA Construction Managers (CMs) of select Contracts on a monthly basis to review current contract risks.

2.0 PROJECT SCOPE

2.1 Engineering/Design and Construction Phase Services

Status:

As of November 30, 2012, MTACC reported that the Engineering/Design effort was 96.2% complete (on a cost invoiced basis). The percent complete varies monthly and depends on the award of tasks to the GEC.

The Stage 3 90% Catenary design package was approved by Amtrak on November 29, 2012. (target for completion of 90% design was October 5, 2012). The GEC is currently working on the 100% design submittal. The forecast date for submitting this to Amtrak was November 10, 2012 and the forecast date for getting approval from Amtrak was December 30, 2012, however these dates were not met. The current forecast for submittal to Amtrak is now January 18, 2013.

The GEC is working towards completing the 60% design submittal for CM015 (48th Street Entrance). Completion of the review was previously forecast for November 2012; however it has now been re-forecast until January 2013. Coordination with the property owners for review of design progress is ongoing.

The previous advertise date of November 29, 2012 for the CH057 (Harold Structures Part 3a) package was not met. The PMT is now forecasting the advertise date for February 1, 2013. The installation of the track slab for the Westbound Bypass tunnel will be removed from the scope of CH057 and advanced separately to take advantage of a 30 day continuous track outage scheduled to begin in July 2013.

The 90% submittal for CH058 (Harold Structures- Part 3b) had been previously forecast by ESA for mid-November 2012; however, this date was not met due to the GEC focus on the CH061 design. The design of the eastbound re-route structure is being revised to permit construction with minimum impact to railroad operations. This revision is underway and is anticipated to be completed by the end of February 2013.

The previous advertise date for the CM014B (GCT Concourse and Facilities Fit-out) package, December 1, 2012 was not met. The PMT is now forecasting the advertise date for April 15, 2013. Revisions to the 44th Street vent plant design were completed in December 2012; and the transformer reconfiguration for the Biltmore Room is anticipated to be completed by the end of January 2013. Procurement packages for the scope of work to be procured separately under the MTA Mentoring Program are anticipated to be ready in late January 2013.

The 90% design for the CH061 (Tunnel A) package was submitted by the GEC on November 26, 2012, and comments were to be returned by the end of December 2012. To the best of the PMOC's knowledge; this did not occur. The GEC is to submit a price proposal to the PMT for a change order to move this scope of work into the existing CQ031 contract package.

Observation:

The GEC and PMT continue to consistently miss all of its target dates for remaining design activities on the project. In several instances (CM014B; CH057), this has resulted in delaying the procurement packages.

Concerns and Recommendations:

The PMT design management team needs to focus on achieving intermediate milestones in a timely fashion and work closely with the GEC to help this happen. The PMOC recommends that the PMT develop a design milestone tracking sheet for the remaining design work on the project; similar to what was done for the catenary design work; in order to more effectively manage the design effort. [Ref: ESA-103-Dec12]

2.2 Procurement

Status:

As of the end of November 2012, the total procurement activity on the project was reported to be 56.3% complete, with $4.904 billion in contracts awarded out of the $8.708 billion revised budget.

Bids for the CM012R (Manhattan Structures Part 2) solicitation were received on October 24, 2012. Four bids were received, with the lowest bid coming in at approximately $350 million

above MTACC's estimate for the work. This presents a serious problem that could impact the current project cost and schedule baselines. MTACC has cancelled the solicitation, and is working on a preliminary strategy for moving forward. This Contract package was on the project critical path and will also impact the CS179 (Systems Package 1) procurement; which depends upon completing certain milestones in the CM012R package for access. MTACC briefed the FTA and PMOC on December 12, 2012 on its preliminary findings and strategy for moving forward. MTACC is looking at repackaging the CM012R scope into five separate procurement packages; as well as moving scope into existing Manhattan packages having similar scope elements. Re-solicitation will be a combination of IFB and RFP, depending on package. MTACC President stated at the meeting that he will make a presentation to the MTA CPOC in January 2013 on impacts of the bid cancellation on the ESA project, but would share early results with FTA/PMOC when they become available (approximately two weeks) with the understanding that the data is a work in progress and is considered preliminary [Ref: ESA-A45-Dec12].

The continuing slippage of awarding the CS179 (Systems Package 1) package remains a major concern. MTACC is still negotiating with three proposers; the NTP forecast date of December 1, 2012 was not met. NTP is now forecast for April 1, 2013. Finalization of this procurement is complicated by the fact that the work in this package is contingent upon completion of key milestones in the CM012R contract; which will most likely require the proposers to re-evaluate their cost and schedule proposals. Also complicating the procurement is the fact that the ESA PMT has asked proposers to submit an option which includes transferring the 63rd Street Tunnel Rehabilitation and Bench Walk back into the Contract. Contract CS179 is also on the project critical path.

The previous advertise date for the CM014B package of December 1, 2012, was not met. As mentioned in the design section above, the new forecast date for advertising this package is April 15, 2013.

The previous advertise date for CH057 package of November 29, 2012, was not met. The PMT is now forecasting the advertise date for February 1, 2013.

Observation:

The ESA PMT has not met any of its new schedule baseline dates for the four major packages that were to be procured in 2012 (CM012R; CS179; CM014B; CH057).

Concerns and Recommendations:

The PMOC is concerned about the need to utilize a significant amount of project contingency for procurement activities. Since the CM012R and CS179 packages were/are on the project critical path; and CH057 and CM014B are near critical; the PMT needs to determine the impact of the delays of these procurements on the overall project contingency. [Ref. ESA-102-Dec12]

2.3 Construction

Manhattan Contracts

CM004 – 44th St. Demolition and Construct Fan Plant Structure and 245 Park Ave. Entrance

	1	2	3	4	5	6
	Original Baseline	**Current Approved Baseline**	**Change to Original (2 – 1)**	**EAC / Forecast**	**Change to Original (4 – 1)**	**Change to Current (4 – 2)**
Contract Cost	$40.77M (Award)	$42.21M	+1.43M 3.5%	$55.70M	+$14.93M 36%	+13.49M 33%
Scheduled SC Date	09/16/11	01/10/13 08/03/12 *(245 Park)*		06/01/13 10/31/12		
Duration (NTP - SC)	24 mos.	40 mos.	+16 mos. 66%	40 mos.	+16 mos. 66%	+16 mos. 66%

Percent Complete		**Actual - 12 mos.**		**Actual - 6 mos.**		**Avg. Req'd. Progress**	
Plan	**Actual**	**Total**	**Avg./mo**	**Total**	**Avg./mo**	**Contract SC**	**Forecast SC**
100%	86%	25%	2.08%	6.6%	1.1%	7%/mo.	2%/mo

From November 2012 ESA Monthly Report

Construction Progress:

- 44th St. Vent Plant
  - Continuing with rock excavation to Elevation 234 and installation of wire mesh.
  - For the Vent Building below grade, continued constructing footings and preparations for above grade steel. Continued with below grade steel erection.
  - For the Vent Building above grade, continued with shop drawings process for above grade steel.
  - 44th St. north and south utility connections remain on hold awaiting permit approval from DEP. The preparation of these documents is the responsibility of the GEC.
  - The current contractor's schedule is for the remaining shaft to be complete by January 15, 2013 from the previously reported December 31, 2012 completion date.

- 245 Park Ave.
  - The contractor continues to complete punchlist items in coordination with MNR work.
  - MNR continues to finalize its own in-house work, and the "official" opening of the entrance is up to MNR.

Observations/Analysis:

The PMOC notes that the forecast substantial completion date for the 44th St. Vent Plant has been further extended to June 2013 from the previous April 2013 extended forecast due to

changes in the structural steel fabricator, and added scope of work. MTACC has also advised the PMOC that as a result of the bids received for the CM012R contract, additional work scope will be added to this contract.

The contractor has advised the Project Team that the new steel fabricator is not an AISC (American Institute of Steel Construction) certified fabricator. Accordingly, the work for fabricating the building structural steel is being subcontracted out to a certified shop. No reason has been provided as to why this was not known earlier.

Concerns and Recommendations:

The PMOC continues to be concerned with the ongoing delays associated with the fabrication and erection of structural steel for the main Vent Plant Building.

The PMOC will continue to monitor the effect on the schedule the delay in steel fabrication, delivery and erection and the new scope of work is having on the schedule as this contract moves toward substantial completion.

CM009/CM019 Contracts – Manhattan Tunnels Excavation/Structures Part 1

Status:

CM009	1	2	3	4	5	6
	Original Baseline	**Current Approved Baseline**	**Change to Original (2 – 1)**	**EAC / Forecast**	**Change to Original (4 – 1)**	**Change to Current (4 – 2)**
Contract Cost	$428.00M (Award)	$411.80M	-$16.20M -3.8%	$413.40M	-$14.60M -3.4%	+$1.60M +0.4%
Scheduled SC Date	07/08/10	6/1/13		5/31/13		
Duration (NTP - SC)	48 mos.	83 mos.	+35mos. 73.0%	83 mos.	+35 mos. +73.0%	0 0.0%

Percent Complete		**Actual - 12 mos.**		**Actual - 6 mos.**		**Avg. Req'd. Progress**	
Plan	**Actual**	**Total**	**Avg./mo**	**Total**	**Avg./mo**	**Contract SC**	**Forecast SC**
95.9%	93.1%	3.2%	0.3%	0.1%	0.02%	0.7%/mo.	1.2%

From November 2012 ESA Monthly Report

CM019	1	2	3	4	5	6
	Original Baseline	**Current Approved Baseline**	**Change to Original (2 – 1)**	**EAC / Forecast**	**Change to Original (4 – 1)**	**Change to Current (4 – 2)**
Contract Cost	$734.00M (Award)	$772.5M	+$38.5M +5.2%	$793.90M	+$59.90M +8.2%	+$21.4M +2.8%
Scheduled SC Date	03/31/12	6/1/13		5/31/13		
Duration (NTP - SC)	48 mos.	62 mos.	+14 mos. 29.2%	62 mos.	+14 mos. +29.2%	0 0.0%

Percent Complete		**Actual - 12 mos.**		**Actual - 6 mos.**		**Avg. Req'd. Progress**	
Plan	**Actual**	**Total**	**Avg./mo**	**Total**	**Avg./mo**	**Contract SC**	**Forecast SC**
90.4%	94.5%	24.4%	2.0%	11.4%	1.0%	0.9%/mo.	0.9%

From November 2012 ESA Monthly Report

Construction Progress:

Construction of all four escalator-ways in Madison Yard, the excavation of sump channels in the Westbound and Eastbound Caverns, and excavation of the 55th St. ventilation cavern was completed.

Summary Observations:

The contractor continues to make great progress toward completion of the project and it appears to the PMOC that the contract could achieve Substantial Completion by late May/early June 2013. This date may be extended, however, dependent upon what the MTACC decides to do with the re-advertisement of the CM012R contract, which was scheduled to complete the cavern finishes started by CM009/CM019. As of this report, the MTACC has not made any decisions concerning the future of the CM012R contract.

Summary Concerns and Recommendations:

Since the contractor has demonstrated its ability to complete its work on schedule during the past year and since the MTACC has also indicated that it will modify work scope in order to complete the CM009/CM019 contract during 2Q2013, the PMOC believes that the contract will be completed by late June/early July 2013. Consequently, the PMOC no longer has concerns about this contract.

CM013 – 50th Street Vent Facility

Status:

	1	2	3	4	5	6
	Original Baseline	**Current Approved Baseline**	**Change to Original (2 – 1)**	**EAC / Forecast**	**Change to Original (4 – 1)**	**Change to Current (4 – 2)**
Contract Cost	$118.35M (Award)*	$123.11M	+$4.76M +4.0%	$127.80M	+$9.45M +8.0%	+4.69M +3.8%
Scheduled SC Date	06/10/12	12/11/12		07/31/13		
Duration (NTP - SC)	29 mos.	35 mos.	+6 mos. +21.9%	43 mos.	+14 mos. +48.2%	+8 mos. +21.6%

Percent Complete		**Actual - 12 mos.**		**Actual - 6 mos.**		**Avg. Req'd. Progress**	
Plan	**Actual**	**Total**	**Avg./mo**	**Total**	**Avg./mo**	**Contract SC**	**Forecast SC**
72.7%	73.2%	28.9%	2.4%	14.8%	2.4%	26.8%/mo.	3.4%

From November 2012 ESA Monthly Report

*Total award price of $118,355,000 includes $94,355,000 for CM013 and $24,000,000 for work performed by the owner of the 300 Park Ave. building.

Construction Progress:

The MPT along 50th and 49th streets is ongoing and being maintained successfully. At the Service Tunnel the protection slab over the waterproofing on the roof of the second basement was completed and preparations are underway for the start of backfill up to the existing sewer line, and begin sewer reconstruction.

At the Vent Plant building, work continues with the erection of structural steel framing and installation of metal decking. At the Loading Dock, concrete slab placement began on December 19, 2012. Installation of metal deck on the roof of the Loading Dock continued. In the Deep Shaft, placement of all 4 intermediate floors is complete. The concrete stair placement formwork began. A separate crew has been dedicated to this work. In the Access tunnel, the high bench work was completed. Preparations are underway to begin the additional scope of work in this area.

Observations/Analysis:

The MTA Monthly Reports indicate that during the past 12 months (November 2011 – November 2012) and the last 6 months (May 2012 – November 2012), the contractor's production has significantly increased. The November 2012 MTA Monthly report indicates that the actual percent complete (73.2%) is slightly ahead of the planned progress (72.7%).

The Project Office has advised the PMOC that the placement of concrete slabs in the Vent Building has been previously delayed because a concrete support wall from the deep shaft was omitted by the contractor, causing an interior column (D-5) to have to be framed in without any base support ("hanging"). Work on this support wall was ongoing with only 2 lifts remaining

through December 24, 2012. When this column is set the concrete floorslabs will be placed on the completed metal deck.

The contractor continues to work toward completing Milestone #5 (shaft access by future contracts) by the February 8, 2012 forecast date noted in the MTA November 2012 Monthly Report. It should be noted that due to developments in the bidding of CM012, Milestone #5 is not impacting any future contracts at this time.

Concerns and Recommendations:

None at this time.

CM013A – 55th Street Vent Facility

Status:

Through December 31, 2012:

- The Original Award and Current Approved Contract Value remained $56,044,000.
- The Original Baseline and forecast Substantial Completion remained April 5, 2015.
- The Estimate at Completion (EAC) remained $58,846,000.

Construction Progress:

- Continuing with test pits. The test pits on the south side have bottomed out at -17 to 18 feet.
- Rock removal will begin the first week in January 2013.
- Trenching has begun for spare Con-Ed ducts.

Observations:

None at this time.

Concerns and Recommendations:

None at this time.

CM014A – GCT Concourse & Facilities Fit-Out

Status:

	1	2	3	4	5	6
	Original Baseline	**Current Approved Baseline**	**Change to Original (2 – 1)**	**EAC / Forecast**	**Change to Original (4 – 1)**	**Change to Current (4 – 2)**
Contract Cost	$43.50M (Award)	$43.65M	+$0.15M +.0.3%	$46.53M	+$3.03M +7%	+2.88M +6.6%
Scheduled SC Date	04/25/13	07/08/13		11/18/13		
Duration (NTP - SC)	18 mos.	20 mos.	+2 mos. +13.5%	25mos.	+7 mos. +38%	+5 mos. +25%

Percent Complete		**Actual - 12 mos.**		**Actual - 6 mos.**		**Avg. Req'd. Progress**	
Plan	**Actual**	**Total**	**Avg./mo**	**Total**	**Avg./mo**	**Contract SC**	**Forecast SC**
37.9%	27.6%	N/A	N/A	20.9%	3.48%	9%/mo	6.0%/mo.

From November 2012 ESA Monthly Report

Construction Progress:

Garage

- MTACC delivered the new ticket booth on December 12, 2012 for installation by the contractor. MNR is supplying the materials to the contractor from stock and the contractor will replenish the stock items.

Concourse

- The sequence of the work moves from south to north.
- Surveying and layout is ongoing.
- Trench excavation and subdrainage work is coming to a close in Zones 3, 4 &5.
- Importing of new fill is ongoing in all zones.
- Installation of FRE/RGS conduit for ductbanks is ongoing in Zones 3, 4 & 5.
- Underground plumbing installation is ongoing in Zones 4 & 5.
- Forming of ductbanks continued in Zones 3, 4 & 5.
- Wire mesh installation for slab-on-grade is ongoing in Zones 1, 2 & 3.
- Slab on grade placement continues in Zones 1 & 2.

Observations/Analysis:

The SCADA redesign remains the primary schedule concern. It cannot be determined at this time what the total schedule impact the SCADA design issue is having on the schedule while system problems are still being resolved. However, the contractor continues to extend their forecast substantial completion dates as this issue continues without resolution. The Project Office has advised the PMOC that in the contractor's recent Update #9 the contractor's forecast

substantial completion date has been extended 22 days to early December 2013 from the previous November 18, 2013.

The Project Office advised the PMOC that MTA intends to add scope to this contract; particularly lining of the access tunnel to Shaft #2 and additional slab on grade area in the Concourse. This will likely further extend the forecast and actual date of substantial completion.

Concerns and Recommendations:

The PMOC continues to been concerned with the ongoing delays in resolution of the SCADA system design. The plan for early development of the permanent power system through Contract CM014A was to provide a single source, going forward, for all contracts in the Concourse/caverns work zones. However, due to recent development of the cancellation of the CM012R bid solicitation, the delays in the SCADA design is not currently impacting the upcoming contract(s) with regards to energizing temporary construction power in the Concourse and Caverns areas or the possibility of bringing in temporary equipment.

Queens Third-Party Contracts

CQ031 Contract – Queens Bored Tunnels and Structures

Status: The Estimate at Completion (EAC) remained at $757.2 million. The forecast Substantial Completion date slipped 2 more weeks beyond the date shown in the PMOC's November 2012 Monthly Report and is now February 15, 2013. The actual cumulative percent complete is 89.4% versus 100.0% planned. Additionally, the PMOC understands that the MTACC is presently considering increasing the contractor's scope of work, which is not contractually defined as of this report.

	1	2	3	4	5	6
	Original Baseline	**Current Approved Baseline**	**Change to Original (2 – 1)**	**EAC / Forecast**	**Change to Original (4 – 1)**	**Change to Current (4 – 2)**
Contract Cost	$648.90M (Award)	$756.9M	+$108.0M +16.6%	$757.2M	+$108.3M +16.7%	+$0.3M 0.0%
Scheduled SC Date	09/26/12	09/26/12		2/15/13		
Duration (NTP - SC)	36 mos.	36 mos.	(no change)	41 mos.	+5 mos. +13.9%	+5 mos. +13.9%

Percent Complete		**Actual - 12 mos.**		**Actual - 6 mos.**		**Avg. Req'd. Progress**	
Plan	**Actual**	**Total**	**Avg./mo**	**Total**	**Avg./mo**	**Contract SC**	**Forecast SC**
100.0%	89.4%	25.0%	2.1%	9.0%	1.5%	10.6%/mo.	5.3%/mo.

Construction Progress:

Although no contractual milestones were achieved during 4Q2012, the contractor did disassemble and remove the TBM slurry treatment plant, turned over a large portion of the Open Cut to follow-on Contract CQ032, and continued construction at the Yard Lead Emergency Exit and the B13 Substation.

Observations/Analysis:

Despite a slow start, the contractor has maintained its construction pace, met all challenges that it was presented with, and is now approaching Substantial Completion. It is the PMOC's observation that the contractor, Granite-Traylor-Frontier, a Joint Venture, performed its construction very professionally. To date, this contract will achieve SC closer to its original contract date than any of the ESA contracts.

Concerns and Recommendations:

Since this contract is nearing Substantial Completion and the contractor has demonstrated its ability to finish its work, the PMOC has no additional concerns or recommendations at this time.

CQ032 Contract – Plaza Substation and Queens Structures

Status: EAC remained unchanged at $187.7 million. Forecast Substantial Completion (SC) date slipped one month from 04/28/15 to 05/27/15. Data date for tables below is Nov. 30, 2012.

	1	2	3	4	5	6
	Original Baseline	**Current Approved Baseline**	**Change to Original (2 – 1)**	**EAC / Forecast**	**Change to Original (4 – 1)**	**Change to Current (4 – 2)**
Contract Cost	$147.40M (Award)	$148.60M	+$1.20M +0.8%	$187.70M	+$40.30M +27.3%	+39.10M +26.3%
Scheduled SC Date	08/14/14	08/14/14		05/27/15		
Duration (NTP - SC)	36 mos.	36 mos.	(no change)	46 mos.	+10 mos. +27.8%	+10 mos. +27.8%

Percent Complete		**Actual - 12 mos.**		**Actual - 6 mos.**		**Avg. Req'd. Progress**	
Plan	**Actual**	**Total**	**Avg./mo**	**Total**	**Avg./mo**	**Contract SC**	**Forecast SC**
19.5%	13.3%	11.8%	0.98%	6.2%	1.03%	4.1%/mo.	2.89%/mo.

Construction Progress:

- Roosevelt Island facility: Construction work is nearing completion.
- Vernon Boulevard facility: Construction work is nearing completion.
- 12th Street facility: Continued reconstruction of sidewalk gratings.
- 23th Street facility: Continued wall construction and beam repairs on Level P3.
- 29th Street facility: Continued wall construction; completed beam repairs in shaft at Level 3; continued construction of new sidewalk grating.
- B10 Substation: Continued structural steel erection and metal deck installation.
- Open-Cut Excavation Area: Continued mobilization in center section.

Observations/Analysis:

The contractor now shows increased slippage from planned monthly completion goals. Future progress needs to be higher than that originally planned to make up for schedule slippage but will be constrained by late access to three work areas: east end of the Queens Open-Cut Excavation (turnover from CQ031); west end of the Queens Open-Cut Excavation (turnover from CQ039); B10 Substation (partial access exists; full access requires removal of the CM009/019 muck conveyor system).

Concerns and Recommendations:

The PMOC is concerned about the potential cost and schedule impacts resulting from the access delays detailed above. The PMOC recommends that the PMT, working with the CQ031, CQ032 and CQ039 contractors and the respective ESA construction managers, expedite turnover of the required areas and closely monitor the execution of the plan. [Ref: ESA-95-Sep12]

CQ039 Contract – Northern Boulevard Crossing

Status: EAC remained unchanged at $102.1 million. Forecast Substantial Completion (SC) date recovered 1 week from May 13, 2013 to May 6, 2013. Data date for tables below is November, 2012.

	1	2	3	4	5	6
	Original Baseline	**Current Approved Baseline**	**Change to Original (2 – 1)**	**EAC / Forecast**	**Change to Original (4 – 1)**	**Change to Current (4 – 2)**
Contract Cost	$85.00M (Award)	$98.40M	+$13.40M +15.8%	$102.10M	+$17.10M +20.1%	+3.70M +3.8%
Scheduled SC Date	10/05/11	08/01/12		05/06/13		
Duration (NTP - SC)	20 mos.	30 mos.	+10 mos. +49.5%	39 mos.	+19 mos. +95.2%	+9 mos. +30.6%

Percent Complete		**Actual - 12 mos.**		**Actual - 6 mos.**		**Avg. Req'd. Progress**	
Plan	**Actual**	**Total**	**Avg./mo**	**Total**	**Avg./mo**	**Contract SC**	**Forecast SC**
100.0%	77.3%	29.7%	2.46%	23.5%	1.96%	(N.A. – past date)	4.54%/mo.

Construction Progress:

- Completed: Sequential excavation method (SEM) mining of all drifts beneath Northern Boulevard and demolition of the slurry wall at the Queens Bellmouth.
- Continued: Installation of waterproofing system; fabrication of structural steel for permanent tunnel lining system; maintaining soil freeze operation.
- Commenced: Installation of structural steel for permanent tunnel lining system.

Observations/Analysis: The SEM mining started late due to problems establishing and maintaining acceptable ground freeze of the soil arch. The SEM mining progressed much slower than planned due to actual soil conditions, higher than anticipated rock elevation and challenging site working conditions. The Contractor completed the SEM mining in November 2012, almost six months later than originally planned. The PMOC believes that the contractor will be challenged to meet the forecast substantial completion date of May 6, 2013. Late completion of this contract has delayed turnover of the Milestone 1A Area, scheduled for July 30, 2012, and the start of Contract CQ032 work in the Early Access Chamber area (CQ032 Access Restraint #1, August 24, 2012) at the west end of the Queens Open-Cut Excavation Area.

Concerns and Recommendations:

The PMOC remains concerned about the continued delays to completion of this contract, the additional costs incurred and the impact of delayed access to the follow-on CQ032 contract. The PMOC recommends that ESA-PMT work closely with the CM, the contractor and the GEC to expedite completion of the finished tunnel beneath Northern Boulevard.

Harold Interlocking Contracts

CH053 Contract – Harold Structures Part 1 and G.0.2 Substation

Status: The Estimate at Completion remained unchanged at $267.8 million. The forecast Substantial Completion date, however, slipped an additional 3 weeks to April 18, 2014. The Actual cumulative percent complete is 71.8% versus 100.0% planned.

	1	2	3	4	5	6
	Original Baseline	**Current Approved Baseline**	**Change to Original (2 – 1)**	**EAC / Forecast**	**Change to Original (4 – 1)**	**Change to Current (4 – 2)**
Contract Cost	$137.30M (Award)	$201.7M	+$64.4M +46.9%	$267.80M	+$130.50M +95%	+$66.1M +32.8%
Scheduled SC Date	05/05/10	01/16/12		4/18/14		
Duration (NTP - SC)	28 mos.	48 mos.	+20 mos. +71.4%	75 mos.	+47 mos. +167.9%	+27 mos. +56.3%

Percent Complete		**Actual - 12 mos.**		**Actual - 6 mos.**		**Avg. Req'd. Progress**	
Plan	**Actual**	**Total**	**Avg./mo**	**Total**	**Avg./mo**	**Contract SC**	**Forecast SC**
100%	71.8%	9.9%	0.8%	4.8%	0.8%	3.6%/mo.	1.9%/mo.

Construction Progress:

No contractual milestones were achieved during 4Q2012, but the contractor continued to make significant progress at many of its construction sites throughout the project, despite being hampered by a lack of Amtrak and LIRR Force Account support personnel, who were required to assist the railroad's return to normal operations after Hurricane Sandy in late October 2012.

Observations/Analysis: The contractor's struggle to obtain sufficient railroad personnel to support its construction is a daily occurrence which apparently will continue well into the future. This has severely hampered its progress, from which it is equally apparent that the contractor will not be able to recover any schedule time it has already lost. It is the PMOC's opinion that the best the contractor will be able to do is avoid additional schedule slippage. Nonetheless, the contractor continues to pursue its work aggressively and takes advantage of every track usage opportunity that is presented to it.

Concerns and Recommendations: The PMOC is concerned that, given the nature of the railroad operations and support, the contractor will lose additional schedule time. The PMOC recommends that the contractor continue its aggressive pursuit of Force Account personnel to accomplish its work.

CH054A Contract – Harold Structures Part 2A

Status: The EAC remained unchanged at $46.2 million. Forecast Substantial Completion (SC), however, slipped an additional month to November 25, 2013. The Actual percent complete is 70.3% versus 95.4% planned.

	1	2	3	4	5	6
	Original Baseline	**Current Approved Baseline**	**Change to Original (2 – 1)**	**EAC / Forecast**	**Change to Original (4 – 1)**	**Change to Current (4 – 2)**
Contract Cost	$21.80M (Award)	$25.90M	+$4.10M +18.8%	$46.20M	+$24.40M +111.9%	+20.30M +78.4%
Scheduled SC Date	12/21/10	12/21/10		11/25/13		
Duration (NTP - SC)	16 mos.	16 mos.	(no change)	51 mos.	+35 mos. +218.8%	+35 mos. +218.8%

Percent Complete		**Actual - 12 mos.**		**Actual - 6 mos.**		**Avg. Req'd. Progress**	
Plan	**Actual**	**Total**	**Avg./mo**	**Total**	**Avg./mo**	**Contract SC**	**Forecast SC**
95.4%*	70.3%	19.6%	1.6%	14.2%	2.4%	1.2%/mo.	2.5%/mo.

* Based on a forecast progress curve not yet reflected in an approved revised baseline schedule.

Construction Progress:

No contractual milestones were achieved during 4Q2012, but the Contractor continued to make significant progress at many of its construction sites throughout the project. Although the same contractor performs both the CH053 and CH054A contracts, CH054A is not so heavily dependent upon Force Account support. As a result, although somewhat impacted by the hurricane, CH054 was more able to carry on its construction than was CH053.

Observations/Analysis:

The CH054A contract has significant construction of the 12kV ductbank in it, which is a prerequisite activity to place the G.O. 2 Substation in service (the critical path of the project runs through the 12kV construction).

Concerns and Recommendations:

As with the CH053 contract, the PMOC is concerned that, if the contractor does not continue to aggressively pursue every construction activity available to it that involves railroad Force Account support, it could lose additional schedule time. The PMOC therefore recommends that the contractor continue to seek every track usage opportunity available and that it continue to push the railroads for adequate support.

Systems Contracts

VH051A (Part 1) – Harold and Point Central Instrument Locations (CILs)

	1	2	3	4	5	6
	Original Baseline	**Current Approved Baseline**	**Change to Original (2 – 1)**	**EAC / Forecast**	**Change to Original (4 – 1)**	**Change to Current (4 – 2)**
Contract Cost	$30.89M (Award)	$30.72M	-0.17M -0.6%	$30.75M	-0.14M -0.5%	+0.03M +0.1%
Scheduled SC Date	06/25/12	06/25/12		07/31/15		
Duration (NTP - SC)	37 mos.	37 mos.	+ 0mos. (+0%)	74 mos.	37 mos. 100.5%	37 mos. 100.5%

Percent Complete		**Actual - 12 mos.**		**Actual - 6 mos.**		**Avg. Req'd. Progress**	
Plan	**Actual**	**Total**	**Avg./mo**	**Total**	**Avg./mo**	**Contract SC**	**Forecast SC**
41%	42%	-	-	-	-	(N/A)	

Construction Progress:

H3 CIL underwent factory acceptance testing at the vendor's manufacturing facility. LIRR witnessing of the factory acceptance tests is planned for the first part of January. The H5 CIL has been inspected by the vendor at the CIL manufacturer's facility.

Observations/Analysis:

Late review comments continue to affect the CIL delivery schedule. The re-sequencing of switches in the Harold Interlocking, which is currently being assessed is expected to impact the submittal review process.

Concerns and Recommendations:

LIRR and GEC's timely review of remaining contract submittals is critical to keeping remaining work on schedule. The PMOC will continue to monitor the schedule progress on this Contract.

VH051B (Part 2) – Harold Tower Supervisory Control System (HTSCS)

	1	2	3	4	5	6
	Original Baseline	**Current Approved Baseline**	**Change to Original (2 – 1)**	**EAC / Forecast**	**Change to Original (4 – 1)**	**Change to Current (4 – 2)**
Contract Cost	$7.10M (Award)	$8.10M	+$1.00M +14.1%	$8.10M	+$1.00M +14.1%	+$0.00M 0.0%
Scheduled SC Date	08/24/10	08/24/10		12/31/12		
Duration (NTP - SC)	18 mos.	18 mos.	+0 mos. 0%	46 mos.	+28 mos. +160%	+28 mos. +160.0%

Percent Complete		**Actual - 12 mos.**		**Actual - 6 mos.**		**Avg. Req'd. Progress**	
Plan	**Actual**	**Total**	**Avg./mo**	**Total**	**Avg./mo**	**Contract SC**	**Forecast SC**
89%	87%					(N/A)	

Construction Progress:

The FHACS (Harold Interlocking Alternate Control System) continues to undergo testing at the Penn Station Central Control (PSCC) facility. Power was lost during testing, necessitating a re-start of the system in order to continue live testing.

Observations/Analysis:

The control systems have been installed in the Amtrak Alternate Control Room at PSCC (FHACS) and the LIRR Harold Temporary Trailer and are in test mode. During the last several weeks of testing, issues with the operation of the system have surfaced which the contractor is currently addressing. These include incorrect indications being displayed, status light malfunctions, failover reconnection and several other minor issues. There were issues with securing a constant power source at the temporary trailer. Nothing by itself is considered a showstopper, but they all need to be addressed before the railroads will approve for the in-service. Substantial completion, which was forecast for the end of December 2012, is now reforecast for February 2013.

Concerns and Recommendations:

The PMOC will continue to monitor the schedule progress on this Contract for the remaining portion of the work.

Railroad Force Account Construction Packages

Status:

FHA01	1	2	3	4	5	6
	Original Baseline	**Current Approved Baseline***	**Change to Original (2 – 1)**	**EAC / Forecast**	**Change to Original (4 – 1)**	**Change to Current (4 – 2)**
Contract Cost	$9.50M	$16.80M	+$7.30M +76.8%	$16.80M	+$7.30M +76.8%	+0 M 0.0%
Scheduled SC Date	09/30/10	01/03/12		4/21/14		
Duration (NTP - SC)	39 mos.	53 mos.	+14 mos. +35.9%	82 mos.	43 mos. 110.3%	+29 mos. 54.7%

Percent Complete		**Actual - 12 mos.**		**Actual - 6 mos.**		**Avg. Req'd. Progress**	
Plan	**Actual**	**Total**	**Avg./mo**	**Total**	**Avg./mo**	**Contract SC**	**Forecast SC**
82.8%	83,8%	**	**	7.5%	1.3%	N/A	1.0%/mo.

*The term "re-baseline" is a misnomer with Force Account work. In Amtrak's case, the "original baseline" has increased to account for the scope changes as detailed in the Project Initiations (PIs) that have been executed for Stage 1. It is presented in the above table to be consistent with the contract tables contained elsewhere in this report.

** MTACC began re-calculating percentage of actual work versus planned work in March 2012. As a result, percentages for the twelve month period do not correspond with percentages from the last six months. To avoid confusion, they will not be presented in the Force Account tables until the March 2013 Quarterly Report.

Construction Progress:

There is no major Amtrak Force Account work remaining in Stage 1, although the Electric Traction Department continues to relocate catenary wires where the CH053 contractor has installed new catenary poles. Due to Hurricane Sandy in late October 2012, Amtrak was not able to support the CH053 contractor adequately during November and December. As a result, little construction progress was made during 4Q2012. This delay should not have a negative impact on the current forecast Substantial Completion date of April 21, 2014, however.

Concerns and Recommendations:

The PMOC remains concerned about Amtrak's ability to adequately support the CH053 contractor with protection personnel. The contractor's installation of catenary poles was proceeding very well before the hurricane, but all Amtrak forces were needed to assist in returning the railroad to normal operation. As a result, its ESA support has not returned to its pre-storm level yet. The PMOC recommends that Amtrak recover from the storm damage as quickly as possible and return its forces to support ESA construction immediately thereafter.

Harold Early Stage 2 Amtrak FA (FHA02)

FHA02	1	2	3	4	5	6
	Original Baseline	**Current Approved Baseline***	**Change to Original (2 – 1)**	**EAC / Forecast**	**Change to Original (4 – 1)**	**Change to Current (4 – 2)**
Contract Cost	$9.70M	$27.4M	+$17.7M +182.5%	$40.50M	+$30.80M +317.5%	+$13.1M +47.8%
Scheduled SC Date	9/30/13	08/30/14		8/20/14		
Duration (NTP - SC)	58 mos.	69 mos.	+11 mos. +19.0%	69 mos.	+11 mos. 19.0%	0 mos. 0.0%

Percent Complete		**Actual - 12 mos.**		**Actual - 6 mos.**		**Avg. Req'd. Progress**	
Plan	**Actual**	**Total**	**Avg./mo**	**Total**	**Avg./mo**	**Contract SC**	**Forecast SC**
56.6%	48.0%	**	**	7.1%	1.2%	N/A	2.6%/mo.

*The term "re-baseline" is a misnomer with Force Account work. In Amtrak's case, the "original baseline" has increased to account for the scope changes as detailed in the Project Initiations (PIs) that have been executed for Stage 2. It is presented in the above table to be consistent with the contract tables contained elsewhere in this report.

** MTACC began re-calculating percentage of actual work versus planned work in March 2012. As a result, percentages for the twelve month period do not correspond with percentages from the last six months. To avoid confusion, they will not be presented in the Force Account tables until the March 2013 Quarterly Report.

Construction Progress: Although no construction milestones for Stage 2 were achieved during 4Q2012, Amtrak C&S personnel were able to make limited progress on the "F1" and "F2" cutover before the hurricane.

Summary Observation:

There are several major Amtrak construction components of Stage 2, including the installation of seven turnouts, the construction of an additional Loop Track, catenary and signal wire relocations, and the installation and cutovers of control huts at "F1" and "F2" Interlockings, as well as a control unit for the FHACS. The main focus of the 2012 work was on the turnout installation and installation of the control huts. Although both are behind schedule due to earlier project delays, Amtrak made significant progress in both areas during 2012, although neither was completed. Amtrak is on a schedule to make both cutovers by mid-2013. The remaining turnout installations are not yet scheduled. The PMOC believes that both these and the other remaining Stage 2 work can be accomplished by the Substantial Completion date of August 20, 2014, with concerted Amtrak effort.

Summary Concerns and Recommendations:

With the ESA management changes that it made in early 2012 and the construction progress it was making before the storm, Amtrak has demonstrated its commitment to the ESA project. There have been indications that this commitment will continue until the project is complete. The only concerns that the PMOC continues to have are the protection support that Amtrak will be able to furnish project contractors in the future and the impact that other unforeseen events such as the hurricane may have on the schedule.

Harold Stage 1 LIRR FA (FHL01)

Status:

FHL01	1	2	3	4	5	6
	Original Baseline	**Current Approved Baseline***	**Change to Original (2 – 1)**	**EAC / Forecast**	**Change to Original (4 – 1)**	**Change to Current (4 – 2)**
Contract Cost	$28.80M	$20.80M	-$8.00M -27.8%	$22.00M	-$6.80M -23.6%	+$1.20M +5.8%
Scheduled SC Date	09/30/10	10/10/11		11/12/14		
Duration (NTP - SC)	39 mos.	51 mos.	+12 mos. +31.6%	88 mos.	+49 mos. 125.6%	+37 mos. +72.6%

Percent Complete		**Actual - 12 mos.**		**Actual - 6 mos.**		**Avg. Req'd. Progress**	
Plan	**Actual**	**Total**	**Avg./mo**	**Total**	**Avg./mo**	**Contract SC**	**Forecast SC**
77.0%	74.0%	**	**	1.7%	0.3%	N/A	1.1%

*The term "re-baseline" is a misnomer with Force Account work. In LIRR's case, the "original baseline" has increased to account for the scope changes as detailed in the Memoranda of Understandings (MOUs) that have been executed for Stage 1. It is presented in the above table to be consistent with the contract tables contained elsewhere in this report.

** MTACC began re-calculating percentage of actual work versus planned work in March 2012. As a result, percentages for the twelve month period do not correspond with percentages from the last six months. To avoid confusion, they will not be presented in the Force Account tables until the March 2013 Quarterly Report.

Construction Progress:

Although no major LIRR Stage 1 construction milestones were attained during 4Q2012, Force Account personnel continued C&S work to install and cutover "H4" CIL in Harold Interlocking and E/T cable installation to relocate the signal power line between new Tower #s 30 and 47.

Harold Early Stage 2 LIRR FA (FHL02)

Status:

FHL02	1	2	3	4	5	6
	Original Baseline	**Current Approved Baseline***	**Change to Original (2 – 1)**	**EAC / Forecast**	**Change to Original (4 – 1)**	**Change to Current (4 – 2)**
Contract Cost	$7.40M	$24.4M	+$17.0M +229.7%	$62.70M	+$55.30M +747.3%	+$38.3M +157.0%
Scheduled SC Date	11/30/15	11/30/15		11/20/15		
Duration (NTP - SC)	75 mos.	75 mos.	+0 mos. 0.0%	75 mos.	+0 mos. 0.0%	+0 mos. 0.0%

Percent Complete		**Actual - 12 mos.**		**Actual - 6 mos.**		**Avg. Req'd. Progress**	
Plan	**Actual**	**Total**	**Avg./mo**	**Total**	**Avg./mo**	**Contract SC**	**Forecast SC**
22.2%	20.3%	**	**	2.9%	0.5%	N/A	2.3%

*The term "re-baseline" is a misnomer with Force Account work. In LIRR's case, the "original baseline" has increased to account for the scope changes as detailed in the Memoranda of Understandings (MOUs) that have been executed for Stage 2. It is presented in the above table to be consistent with the contractor tables contained elsewhere in this report.
** MTACC began re-calculating percentage of actual work versus planned work in March 2012. As a result, percentages for the twelve month period do not correspond with percentages from the last six months. To avoid confusion, they will not be presented in the Force Account tables until the March 2013 Quarterly Report.

Construction Progress:

LIRR Force Account personnel reconstructed the Westward Passenger Track on its new ESA alignment, which it completed in mid-December 2012.

Summary Observation:

With the completion of the Westward Passenger work, the LIRR demonstrated its capability to perform construction based on Site Specific Work Plans (SSWPs) and the schedules contained therein.

Summary Concerns and Recommendations:

The PMOC remains concerned that the LIRR can produce the quantity of SSWPs that will be required for future construction on the fast pace that will dictate their need. The SSWP for the Westward Passenger construction took many months to complete. The LIRR will not have that amount of time to prepare individual SSWPs for future construction. The PMOC recommends that the LIRR begin to develop its SSWPs for 2013 and 2014 immediately so that it can stream-line all decisions and engineering that lead to a completed SSWP. [Ref: ESA-101-June12]

2.4 Operational Readiness

A Quarterly Operational Readiness meeting was held on December 20, 2012. The focus of the meeting was Rail Activation planning as discussed below.

Rail Activation Planning

There are 11 Task Groups assigned to progressing rail activation activities, including a Task Group comprising representatives of MNR. Steps and activities within each task group have been identified and are being finalized. Early Start Tasks (those that have to begin before the end of 2014) have been defined. The earliest of these will begin in January 2013. Q4 reviews were held with all Task Groups with participation by ESA; LIRR; and MNR. Open item logs for each of the Task Groups have been developed. The Senior Level Management Group for Rail Activation (including members of LIRR and MNR) met during the last quarter (3Q2012). A monthly summary of rail activation activities is being developed in order to keep the Senior Level Management Group apprised on progress.

Operational Readiness Schedule

The Operational Readiness Group is developing a schedule for Task Group activities that are being placed in the ESA baseline schedule.

Observation:

The Operational Readiness group continues to progress activities comprising system start-up and commissioning.

Concerns and Recommendations:

There are no significant concerns or recommendations at this time.

2.5 Vehicles

Status:

The M-9 RFP process consists of two phases: Phase 1 is a pre-qualification step that was advertised on June 5, 2012. Phase II consists of the Technical and Pricing proposals from qualified proposers which are due in January 2013. LIRR reported that they are still on target for receiving proposals in January 2013. The anticipated contract award date is currently July 2013.

Observation:

As of this report, the procurement is proceeding as planned.

Concerns and Recommendations:

There are no significant concerns at this time.

2.6 Property Acquisition and Real Estate

Status:

The Rudins and MTA Real Estate met on September 14, 2012 to discuss the valuation approach and timing of the work at 415 Madison Ave. Since the development of the easements is in parallel with the negotiation of the consideration for payment for the easements, damages, temporary construction easements, condemnation is anticipated to be necessary to terminate the

HSBC lease. MTA Real Estate is waiting for an updated construction schedule from the PMT before choosing a suitable timeframe for the public hearing.

MTA Real Estate is also taking the lead in negotiating with the owners of 280 Park Ave. and technical discussions are underway. MTA Real Estate, MTACC and MTA's appraiser met with 280 Park, Vornado on October 12, 2012 and discussed the evaluation approach of the property and issues concerning NY City Planning. The City Planning discussion centered on Vornado's current plan to renovate their existing plaza, which includes the ESA's ADA elevator. When this plaza was built, NYC gave the developer/property owner a bonus of additional buildable SF as per the zoning regulations. Along with the original public plaza construction, the developer was also required to provide amenities such as seating, plantings, etc. which must be included/maintained in their current renovation plan. Based on MTACC-ESA's input, Vornado will have to modify their plan which will eliminate some seating and plantings due to MTACC's requirement for additional maintenance access to the ADA elevator. This change will require a minor plaza re-design, in order to incorporate the seating and plantings elsewhere on Vornado's plaza and additional discussions with City Planning.

ESA has gained access to 335 Madison Avenue to further designs for the easements associated with the construction and operation of 1) an employee elevator that will connect the ESA/LIRR Station Master's Office on the ESA concourse level to the GCT Terminal Management Center on the GCT concourse level and 2) the public ADA elevator in the Biltmore room. The designs are projected for completion in early 2013, and progress design schemes are too preliminary for meaningful appraisal purposes. The window for the public hearing related to easement requirements at this property has been tentative projected for early 2013.

Observation:

From the PMOC's perspective, there has been little demonstrable progress since the discussions referenced above that took place in Q32012.

Concerns and Recommendations:

The PMOC remains concerned about the length of time it is taking to finalize all of the Real Estate aspects of the 48th Street Entrance to GCT; however, this activity is currently not on the project critical path.

2.7 Community Relations

Status:

During the period of October 2012 through December 2012, the ESA project team continued to provide community outreach and coordination.

Observation:

The PMOC believes that the ESA Community Relations staff is reaching out appropriately and effectively to inform Manhattan and Queens communities of upcoming construction work and planned changes, and has properly handled concerns and complaints from the community.

Concerns and Recommendations:

There are no significant concerns at this time.

3.0 PROJECT MANAGEMENT PLAN AND SUB PLANS

3.1 Project Management Plan

Status:

The PMOC completed its review of MTACC's incorporation of the candidate revisions. Based on the FTA's review of the PMOC's comments, the PMOC updated and re-submitted them in May 2012. The revised comments were sent to MTACC in June 2012 and working meetings with MTACC to resolve the comments and develop an implementation approach were held on July 17, 2012 and August 1, 2012. MTACC submitted, on August 7, 2012, their plan to incorporate comments into PMP Revision 8.1 in 2012 and PMP Revision 9.0 in 2013. On September 27, 2012, MTACC submitted PMP Revision 8.1 which is currently under review by the PMOC. As of December 31, 2012, MTACC has started work on the future PMP Revision 9.0 that is planned for completion in June 2013.

Observation:

MTACC is utilizing a task force to address the FTA/PMOC comments on incorporation of the PMP candidate revisions it plans to include in the next update, Revision 9.0. MTACC continues to actively make progress in advancing comment incorporation into the PMP document.

Concerns and Recommendations:

There are no specific PMOC concerns or recommendations at this time.

3.2 PMP Sub-Plans

Status:

The status of the key PMP sub-plans is discussed in the ELPEP section of this report.

3.3 Project Procedures

Status:

In November 2012, the MTACC indicated to the PMOC that it had completed development of all procedures that it intended to revise. The total count of revised ESA procedures stands at 77.

Observations:

In the PMOC's opinion, the MTACC has developed all the revised procedures necessary to support its revised Project Management Plan (PMP).

Concerns and Recommendations:

Although the MTACC has finished development of all its revised procedures, the PMOC is aware that it has not yet begun full-scale training of its personnel, which is also part of the process. The PMOC recommends that the MTACC begin the training phase of this commitment as soon as possible.

4.0 PROJECT SCHEDULE STATUS

4.1 Integrated Project Schedule

Status:

The ESA-PMT issued the IPS #42 with data date of December 1, 2012. This schedule has an RSD of September 1, 2019, with 299 calendar days (10 months) of contingency.

Observations/Analysis:

As discussed earlier in the report; the ESA did not award Contract CM012R because of a significant difference between the lowest bid amount and the ESA project estimate. The delays caused by having to re-solicit and shift scope around will result in significant consequences to the project critical path and project schedule contingency usage. It should be noted that, although ESA has confirmed two months of contingency usage so far, they acknowledged at the December 19, 2012 post bid briefing to the FTA/PMOC that the actual amount may be much more than this.

The PMOC performed a work-hour analysis of the four bids which ESA received for the CM012R contract, the full details of which will be maintained in the PMOC's office for review. Based on actual work hours previously spent on the ESA project by Contract CM019 in the East- and Westbound Caverns for similar work, the analysis concluded that that it would take approximately 51 to 60 months (dependent upon the number of laborers that the contractor could efficiently employ in the caverns at one time) to complete the contract. It should be noted that MTACC stated at the December 19, 2012 post bid briefing that they believed that one of the reasons that bid came in so high was the bidders' perception of an aggressive schedule.

The PMOC's analysis further revealed that, based on historical CM019 experience in the caverns, the amount of laborers included in the lowest bidder's proposal would be excessive for the contractor to execute the work efficiently. As a result, the PMOC believes that the duration for the work could be more likely in the 51 to 60 month range. This range also considers the extended procurement cycle that the PMOC believes will be highly likely, and the splitting of scope of CM012R contract into new procurement packages and contract modifications for several existing contracts, which will add further schedule time to the total construction duration.

The PMOC analysis also includes review of the CS179 Contract, which will be a successor activity to the completion of the Manhattan caverns after the replacements for the CM012R contracts are in place. There will be significant interface milestones between CS179 and the existing CM012R scope, for which the MTACC has indicated that it will maintain all milestones established for the CM012R Contract as it was originally advertised. The PMOC has observed, however, that to date, the ESA PMT has not identified the new milestones that will need to be created between CS179 and all of the contracts that will replace CM012R.

In addition to delays in award of the CM012R (bid solicitation cancelled), and CS179 Contracts, the PMT has delayed the award of CM014B for 6 months, and CH057 for three months since the July 2012 IPS update based on the new baseline.

Concerns and Recommendations:

The PMOC is concerned about multiple issues in ESA's schedule. The first and foremost is the PMT's duration estimate for the work scope in Contract CM012R. The ESA PMT needs to have an accurate assessment of the total duration of the work scope, regardless of how it is

repackaged/shifted. The second concern is that the PMT has not specified the interface milestones dates between Contract CS179 and the potential future packages containing the CM012R scope of work. The SMP Section 5.4 calls for the establishment of interface milestones dates. To date, the PMT is not compliant with this section of SMP. As a result of its analysis, the PMOC believes that the current IPS does not accurately reflect the actual state of overall project schedule at present. The PMOC therefore recommends that the PMT update its IPS based on a realistic duration for the CM012R replacement contracts and interface milestones with contract CS179, as well as taking into account the impact of delays due to not awarding and issuing NTP for CS179 by the end of 2012.

4.2 90-Day Look-Ahead of Important Activities

Status:

The vetting and approval process for repackaging and shifting the scope of work for the cancelled CM012R solicitation, including getting approval from the CCC will be critical in the next 90 days. Additionally, ESA reported that the Notice to Proceed (NTP) for CS179 has been extended until April 1, 2013.

Observations/Analysis:

The PMOC has established performance metrics to identify and monitor percent complete of start milestones, finish milestones, and activities for each quarter starting with 3Q2012. The actual data for the 4Q2013 will be received by the PMOC in January 2013. Table 4.1 below shows the PMOC's analysis of the 3Q2012 result of ESA's schedule performance.

Note in Table 4.1 below that ESA did not reach its plan for finish and start milestones for the Harold Contracts. If this trend continues, the embedded contingency for the Harold work (approximately 11 months) will be reduced.

Table 4.1: 90 Day Look Ahead- Performance Metrics

	Planned Finish Milestone	Planned Start Milestone	Planned Activities	Planned Grand Total	Actual Finish Milestone	Actual Start Milestone	Actual Activities	Actual Grand Total	% Accomplished
3Q2012	**64**	**0**	**654**	**718**	**15**	**7**	**280**	**302**	**42.06%**
F	0	0	1	1	0	0	0	0	0.00%
H	49	13	443	505	11	4	164	179	35.45%
L	0	0	4	4	0	0	4	4	100.00%
M	8	2	55	65	3	0	27	30	46.15%
NO	2	0	3	5	0	0	0	0	0.00%
Q	5	6	146	157	1	3	83	87	55.41%
S	0	1	2	3	0	0	2	2	66.67%
4Q2012	**45**	**15**	**397**	**457**					
H	31	8	261	300					
M	6	1	38	45					
NO		0	1	1					
Q	7	0	82	89					
R		1	1	2					
S	1	4	7	12					
TBD	0	1	7	8					
2013	**30**	**9**	**273**	**312**					
1Q2013	20	5	143	168					
H	4	1	26	31					
M	3	0	65	68					
Q	2	3	26	31					
S	1	0	13	14					

Legend; F: Startup/testing and commissioning; H: Harold Contracts; IST: Integrated System Testing; L: Operation readiness; M: Manhattan Contracts; NO: Contracts not driving Revenue Service Date; Q: Queens Contracts; R: Rolling Stock; S: System Contracts.

Concerns and Recommendations:

It is evident that ESA's level of schedule achievement in 3Q2012 was extremely low (40%). The PMOC will receive ESA's 4Q2012 data in January 2013. In view of what has happened to Contract CM012R, and the delay in award of Contract CS179, the PMOC does not believe that performance metrics will improve greatly for 4Q2012. The ESA PMT agreed at a meeting held with FTA/PMOC on July 30, 2012 to develop a set of critical metrics jointly with the FTA/PMOC and MTA IEC that would be used as an early indicator of issues that need to be addressed by senior management. The need to do this was reiterated at the November 8, 2012 ESA/SAS mini-quarterly meeting. The PMOC recommends that ESA progress this effort to develop critical performance metrics along with an agreed upon venue for discussing these on a regular basis. [Ref: ESA-A46-Dec12]

4.3 Critical Path Activities

Status:

The PMT has not fully identified the consequences of not awarding Contract CM012R and the delay in award of CS179 contract. Both of these packages were on the IPS critical path. The PMT has drawn down only two months of project contingency in the latest IPS update and has indicated that this is only a placeholder until the actual schedule impacts of the CM012R bid cancellation have been fully determined.

The PMT has currently restructured the IPS so that the Harold schedule is somewhat independent from the Manhattan contract schedules until the cutovers at Harold occur, which will then link the Manhattan and Queens schedules. As a result, the PMT has identified the Harold critical path which goes through the Force Account construction packages FHL01, FHL02, FHA01, and FHA02.

Observations:

In addition to Manhattan contracts of CM012R, and CS179, the PMT has delayed the award of CM014B for 6 months, and CH057 for three months since July 2012 IPS update based on the new baseline. The postponement of NTP for Contract CS179 to April 1, 2013 represents a six-month delay based on the baseline IPS of July 2012. Since CS179 is on the project critical path, and project contingency would be impacted if NTP was not given by the end of 2012, project contingency will be impacted, and this impact should be reflected in the IPS.

Concerns and Recommendations:

As stated in Section 4.2, 90 Day Look-Ahead, above, the PMOC recommends that ESA develop performance metrics similar to the PMOC's to show its level of schedule achievement per quarter and to help identify schedule risk areas early on.

Since the CM012R Contract was on the critical path and project contingency will be impacted beginning on January 1, 2013, it is highly likely in the PMOC's opinion that all, if not most, of the 365 days of contingency will be used up for just this procurement; thus effectively eliminating the project's ability to mitigate future schedule risk events.

4.4 Schedule Contingency Analysis

Status:

IPS #42 indicates that the cancellation of the Contract CM012R consumed two months contingency, which now leaves 299 calendar days (10 months) of overall project contingency. As stated previously the PMT acknowledged that this amount is just a placeholder, and that the actual contingency usage will more than likely be greater than two months.

Observations/Analysis:

Based on its analysis, which is presented in Section 4.1, along with the amount of time that will be required to re-solicit and transfer scope to existing contracts, the PMOC believes that most, if not all of the project's contingency will be utilized.

Concerns and Recommendations:

Given the situation created by the cancellation of the CM012R package, the PMOC continues to recommend that ESA perform a detailed analysis of its future package schedules based on the re-scoping of CM012R and establish interface milestone dates to create a new contingency plan. [Ref: ESA-98-Sep 12] If it turns out that most of the project contingency is utilized due to the repercussions of the bid cancellation, MTACC will have to evaluate the viability of the current baseline RSD.

5.0 PROJECT COST

Note: All references to expenditures in this report are with respect to the current cost baseline that was agreed upon at the MTA CPOC meeting in May 2012.

5.1 Budget/Cost

Status:

MTACC completed its revised project cost and schedule re-baseline in May 2012 and placed it in Standard Cost Category format in July 2012. Table 5.1 shows a comparison of the MTA's Current Baseline Cost Estimate broken out in SCC vs. the FFGA baseline.

Table 5.1: Comparison of Standard Cost Categories: FFGA vs. Current Baseline

Standard Cost Category	Description	FFGA baseline (YOE$)	MTA's July 2012 Baseline Cost Estimate (YOE$)	% Change from FFGA	Nov 2012 Current Baseline Budget (CBB)	CWB Variance from Rebaseline
10	Guideway & Track	1,988,741,167	2,943,134,639	47.99%	2,902,266,000	-1.39
20	Stations	1,168,655,079	1,514,027,405	29.55%	1,575,466,233	4.06
30	Support Facilities:	356,264,228	388,053,607	8.92%	388,775,526	0.19
40	Sitework & Utility	205,104,572	487,858,151	137.86%	498,607,613	2.20

Standard Cost Category	Description	FFGA baseline (YOE$)	MTA's July 2012 Baseline Cost Estimate (YOE$)	% Change from FFGA	Nov 2012 Current Baseline Budget (CBB)	CWB Variance from Rebaseline
50	Systems	619,343,096	698,309,342	12.75%	666,267,170	-4.59
60	Right-of Way	165,280,342	203,639,301	23.21%	203,639,301	0.00
70	Vehicles	493,982,304	674,371,631	36.52%	674,371,631	-44.49
80	Professional Services	1,183,999,942	1,648,605,925	39.24%	1,648,605,926	0.00
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Subtotal		**6,349,900,000**	**8,708,000,000**	**37.14%**	**8,708,000,000**	**0.00**
100	Finance Charges	1,036,103,583	1,116,453,993	7.76%	1,116,454,000	0.00
Total Project Cost (10 – 100)		7,386,003,583	9,824,453,993	33.01%	9,824,454,000	0.00

Observations:

In the project re-baseline of May 2012, ESA's budget was increased by approximately $2.5B in comparison to the 2006 FFGA, and its RSD has been delayed by 68 months from December 2013 to August 2019. In the subsequent 6 months costs have been transferred among SCC's (see Table 5.1) and projected cost impacts of the CM012R bid cancellation have not been included.

Concerns and Recommendations:

PMOC will continue to monitor cost performance vs. the new baseline going forward. The significant overrun in the CM012R bids could put ESA below the FTA required minimum Contingency level stipulated in the ELPEP agreement.

5.2 Project Cost Management and Control

Status:

ESA reported in its November 2012 Progress Report that based on invoiced amounts, 52.0% of the total project (which includes all "Soft Costs") was completed as of November 30, 2012 and the total construction progress was 47.8% completed.

Observations:

The PMOC continues to disagree with the PMT's calculation of 52.0% of total project completion because the PMT has calculated this percentage based on the total project budget of $8.2B. [redacted] As presented in section 1.1, above, ESA's total project budget is $8.71 billion. In order to get a true project percent

complete, all calculations should be based on this amount. Table 5.2 below summarizes ESA's budget and percent completion.

Table 5.2: Project Budget and Expenditures as of November 30, 2012

Categories	Current Total Budget ($)	Awarded Value ($)	Invoiced to Date ($)	% Budget Invoiced
Construction	6,118,922,157	3,574,532,025	2,999,648,140	49.02%
Soft Costs Subtotal	1,976,077,843	1,329,279,109	1,288,763,066	65.22%
Engineering	671,029,379	613,799,486	608,306,159	90.66%
OCIP	173,913,620	112,941,841	104,451,900	60.06%
Project Mgmt.	762,816,530	494,360,768	469,415,136	61.54%
Real Estate	166,318,314	108,177,014	106,639,871	64.12%
Rolling Stock	202,000,000	0	0	0.00%
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Project subtotal w/o Financing and RI	8,245,000,000	4,903,811,134	4,288,461,206	52.01%
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Project Subtotal	8,708,000,000	4,903,811,134	4,288,461,206	49.25%
Regional Investment Subtotal	590,732,003	15,346,715	12,173,152	2.06%
Construction (RI)	475,016,081	15,135,843	12,141,822	2.56%
Design (RI)	24,595,433	210,872	31,330	0.13%
OCIP (RI)	16,939,198	0	0	0.00%
Project Mgmt. (RI)	24,181,291	0	0	0.00%
Rolling Stock (RI)	50,000,000	0	0	0.00%
Project Subtotal w/o Financing	9,298,732,003	4,919,157,849	4,300,634,358	44.46%
Financing Cost	1,116,453,993	417,900,000	417,900,000	37.43%
Project Grand Total	**10,415,185,996**	**5,337,057,849**	**4,718,534,358**	**43.71%**

[redacted]

The PMOC calculated ESA's cash flow, which is presented in Appendix H-1, based on the budget of $8.7B. Table 5.3 shows the actual invoice amounts for the months of October and November 2012.

It should also be noted that ESA does not have Engineering or Project Management budgets beyond 4Q2018 until 3Q2019. [redacted]

Since the May 2012 re-baseline, the PMOC concludes that ESA project is 26.47% behind its planned Construction invoices and 22.42% behind its total project budget invoices, as determined from Table 5.3.

Table 5.3: Invoiced Amounts (Planned vs. Actual)

Categories	Invoiced as of November 2012	Invoiced as of October 2012	Actual Invoiced Nov. 2012	% of 4Q2012 Plan Values	% of Planned Invoiced to Date
Construction	$2,999,648,140	$ 2,963,927,633	$35,720,507	64.07%	79.07%
Soft Costs Subtotal	$ 1,288,845,604	$ 1,276,115,003	$12,730,601	87.16%	91.81%
Engineering	$608,306,159	$ 606,101,138	$ 2,205,029	165.57%	96.05%
OCIP	$104,451,900	$ 104,451,900	$ 0	100.00%	82.26%
Project Mgmt.	$469,415,136	$ 464,714,365	$ 4,700,768	96.12%	93.03%
Real Estate	$106,639,871	$ 100,816,270	$ 5,823,601	47,78%	75.63%
Rolling Stock	0	$0	$0	100.00%	100.00%
[redacted]					
Project subtotal W/O Financing and RI	$ 4,288,461,206	$ 4,240,011,306	$ 48,449,900	67.49%	82.50%
[redacted]					
Project Subtotal	$4,288,461,206	$4,240,011,306	$48,449,900	67.49%	82.50%

Concerns and Recommendations:

The PMOC is concerned about the lag of invoiced amount for construction and total project to date compared to the Forecast amount in the re-baseline cash flow. This continues the trend of ESA historically not keeping up with its monthly expenditure plans. [Ref: ESA-99-Dec12] In response to an earlier PMOC request, the ESA PMT provided an explanation of their Budget Adjustment process and, as a result, ESA-A40 will now be closed. [Ref: ESA-A40-Jan11]

5.3 Change Orders

Status:

During November 2012, the PMT executed one change order for Contract CH004 in the amount of $105,000. The PMOC conducted a comprehensive change order analysis and concluded that the trend for executed change orders is about 15% of the respective contract award values (excluding force account contracts).

Observation:

Since ESA has budgeted 17.2% for change orders in its EAC, this would leave ESA with a 2.2% surplus. Since the potential claims for all active construction contracts have not been considered yet, the PMOC would expect some major claim settlements involving additional costs in the near future. The PMOC cannot confirm that the 2.2% surplus will be sufficient to cover the remaining ESA contracts. (See Appendix H.2 for Change Order status on Active Contracts.)

Concerns and Recommendations:

The PMOC recommends that the PMT prepare an analysis and outline its plan for allocated and unallocated contingency consumption.

5.4 Project Funding

a) Federal Funding

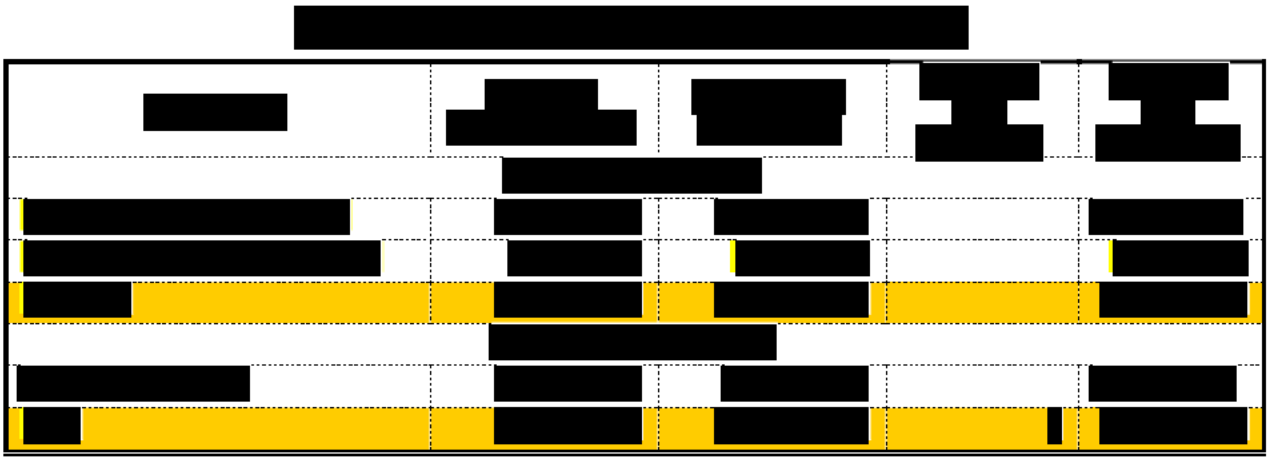
As shown in Table 5.2, as of November 30, 2012, the PMT has awarded a total of $4.904B, in contract work. The Federal share of awarded contracts is $1.836B. (See Appendix H.1 for re-baseline project cash flow and Appendix H.2 for detailed cost distribution)

b) Local Funding

The awarded local share was $2.959B ($2.706.4B was disbursed). There has been a $417,900,000 incurred finance cost (for local share) to date.

5.5 Cost Variance Analysis

This is covered in the discussions above.



Observation:

The ESA PMT has not incorporated the bid values for CM012 in its EAC, as would be prudent to do. Despite comments from MTACC Senior Management at the December 12, 2012 post bid meeting with the FTA/PMOC that they hoped to reduce the $350M overage by roughly $100M through repackaging, no increase in EAC was provided in this month's project cost estimate, not even a forecast incorporating a percentage of the over run.

The PMOC notes that the ESA PMT does not have any project management or engineering budget after August 2018, although its RSD is August 2019.

Overall Concerns and Recommendations:

ESA decisions to not include in the EAC the probable cost impacts of Bids received, or provide its rationale, let alone incorporate the probable cost impacts of re-bids and delays in Schedule means that its EACs and general forecasting are not reliable and creates additional Risk Unknowns in terms of Management.

The PMOC is concerned that the PMT does not have any project management or engineering budget after August 2018, although its RSD is August 2019 (see Section 5.2). The PMOC is concerned that the PMT will use its management reserve to fund these costs, thus utilizing valuable contingency for activities that should have been already budgeted for. This

Management Reserve is intended for unforeseen cost increases and should not be used to cover know budget short falls.

The PMOC recommends that ESA develop a revised cost contingency drawdown plan based on agreed upon milestones. [Ref: ESA-98 Sep 12]

6.0 RISK MANAGEMENT

6.1 Risk Mitigation Commitments

Background:

During 2Q2012, MTACC completed a comprehensive risk assessment of the ESA project based on the comprehensive cost and schedule re-baselining undertaken by the PMT in the September 2011 – March 2012 timeframe. In May 2012, the MTACC's independent risk assessment consultant completed its initial analysis, and issued the draft report on May 15, 2012. Also in May 2012, the PMOC independently completed its update of the 2009 PG47-based risk assessment and issued its Risk Assessment Technical Memorandum in June 2012. Based on the cost and schedule re-baselining and the project-wide risk assessment, MTACC presented the new budget and RSD to the MTA Capital Program Oversight Committee on May 21, 2012: $8.24 billion budget (w/o vehicles and financing); August 2019 RSD. This new, revised baseline budget and RSD reflect the decision by MTA's upper management to use the "low degree of mitigation" results from their internal risk assessment in May 2012 that corresponds to approximately a "P80" confidence level. The final low degree of risk mitigation cost results by both MTACC and the PMOC were within $5 million of each other, with a 4 month difference in RSDs. These revised baseline parameters were accepted and now form the basis upon which regular and continued risk analysis should be performed

Status:

Subsequent to the establishment of the revised baselines for cost and schedule, the project received a bid for the CM012R solicitation that was significantly higher than the ESA estimate for this Contract Package. [redacted] The MTACC cancelled the procurement and initiated an evaluation of the reasons behind the disparity in CM012R procurement results, while establishing a preliminary new course of action. In their latest Risk Register, MTACC lists the risk associated with a "Delay in the Procurement of CM012" as Risk #619. It should be noted that this risk item has not been updated since the bid opening. Risk #619 suggested an upper threshold of significance as $300 million, meaning that the actual procurement results exceeded the worst case scenario previously contemplated by MTACC. MTACC continues to develop its remedial plans and has yet to provide an official mitigation plan.

Observations/Analysis:

The new budget and RSD presented by MTACC reflect the decision by MTA's upper management to use the "low degree of mitigation" results from the risk assessment that correspond to approximately a "P80" confidence level. The final low degree of risk mitigation cost results by both MTACC and the PMOC were within $5 million of each other, and with a 4 month difference in RSDs. It is the PMOC's opinion that obtaining close results through the use of different risk assessment methodologies validates the risk-informed cost and schedule baselines for the project.

Concerns and Recommendations

The PMOC is concerned that the complexity, risk, and coordination of the construction activities previously associated with the CM012R solicitation documents, as viewed by the contracting community, proved to be more challenging than previously accounted for in MTACC's internal cost estimate and schedule allowance. It should be noted that the CM012R procurement was the second solicitation for basically the same scope of work (the original CM012 procurement was cancelled while on the street due to concerns expressed by the pool of potential bidders). In addition the CM012R procurement experienced 20 Addenda, and had over 6000 pages of specifications and drawings; clearly indicating the complexity of the work which contributed to the higher bids. The PMOC does not believe that the scope of work can effectively be split up without realizing new complications. This concern is compounded by the fact that ESA PMT's repackaging efforts will need to progress hastily, leading to potential further redundancies, ambiguities, and errors, which may require further modifications and addendums to existing or future contracts.

By repackaging the work, some cost savings may be attained, but based on the results from a series of previous repackaging efforts on the ESA project, the PMOC believes that, ultimately, the cost of completing all of the work previously associated with CM012R will not result in a in a reduction of $100-$150 million anticipated by MTACC. Furthermore, there is likely to be significantly increased coordination requirements in any repackaging effort. By moving the work into a later time frame, the costs will be certainly be escalated, while the time allotted to secure new construction contract will significantly impact the overall project schedule contingency, and may impact the current re-baselined RSD of August 2019.

As a result of the CM012R bid results and the large potential cost and schedule impacts to the project, the MTACC may have to initiate a recovery plan as called for in the ELPEP agreement. This determination will have to be made after MTACC completes its assessment of the cost and schedule impacts of this procurement.

6.2 Risk Management Commitments

Status:

MTACC's risk management commitments are detailed in the Risk Management Plan (RMP), Rev. 2.0 dated July 2012, which is a sub-plan within the ESA Project Management Plan (PMP). The RMP was updated to bring it into compliance with the ELPEP principles and requirements and has been reviewed by the FTA and the PMOC. MTACC has incorporated these comments into the current revision of the RMP and the PMOC nearing completion of its final review.

Observations/Analysis:

The central approach to the ESA risk management process focuses on routine reviews by the MTACC Risk Manager and the Construction Manager (CM) for each active construction contract; continuous updating of the ESA Project Risk Register; and update and maintenance of the Contract Issues Log for each active construction contract.

Significant risks, that is, those above $250,000 in potential cost risk and/or those with potential impact on the project critical path, are to be reviewed monthly. Although the ESA-PMT has advised that the project is following this process, the PMOC has not observed the process directly. The PMOC will be reviewing the associated documentation with a focus on those cost

and schedule risks that could have a significant adverse impact on the project. Such risks will be discussed at the monthly risk meeting with the FTA/PMOC.

The PMOC is currently reviewing the recently received updated Risk Register for the October-November 2012 time frame.

Concerns and Recommendations:

Subsequent to completion of the independent risk assessment in May 2012, MTACC made the commitment to the FTA to institute monthly risk meetings, inviting both the FTA and the PMOC. To date MTACC has not scheduled the initial kick-off meeting although it has been promised numerous times (latest being at the ELPEP meeting held on December 12, 2012, in which the MTACC Risk Director stated that they were planning to hold a risk meeting in January 2013). This is a continuing concern, which the PMOC continues to bring up to MTACC. Proactive risk management needs to be continually practiced, and these monthly meetings would provide a logical vehicle to meet this goal; fundamental to a successful risk management process. [Ref: ESA-97 Sep 12]

6.3 Current Risk Mitigation Actions

Status:

During the period of October 2012 – December 2012, the ESA-PMT continued its efforts to identify and mitigate risks that may adversely affect the program's future cost and schedule performance. Ongoing and recent significant risk mitigation initiatives include the following:

1. The ESA-PMT is advancing the construction of the westbound bypass slab by transferring this scope out of the CH057 – Harold Part 3 contract to either an on-call contract or an existing construction contract. An opportunity exists to construct the slab during a planned 30 day track outage with LIRR to begin in mid-July 2013. Advancing this work during that time window will mitigate the risk of delays due to the volume of work planned in the June and July 2014 time frames which may limit the availability of railroad resources. Also by pulling this work of the CH057 package, the risk of not awarding the CH057 package in time to hit the 30 day window will be mitigated.
2. The ESA-PMT continues to explore alternative bid strategies for the CM012 scope of work and is using its Manhattan 4D modeling to review accessibility possibilities and access points.

Observation/Analysis:

In addition to the risk mitigation actions discussed above, the PMOC notes that ESA-PMT continued, through December 2012, coordination efforts between CH053 and CQ031 regarding the remaining work area. Although the ESA PMT is exploring alternate strategies for bidding the work from the CM012R, the PMOC believes that it will be extremely difficult to significantly mitigate the realized cost/schedule risks incurred as a result of the bid cancellation.

Concerns and Recommendations:

The PMOC continues to recommend that the PMT perform cost-benefit analyses, complete with schedule review, within the framework of the ESA Risk Management Plan, and in accordance with current project configuration change control, to validate the effectiveness of proposed risk mitigation actions.

FOIA Exemption 5 U.S.C. Section 552(b)(4)

[redacted]

7.0 PMOC CONCERNS AND RECOMMENDATIONS

Priority in Criticality column

1 – Critical 2 – Near Critical

Number/ Date Initiated	Section	Issues/Recommendations	Criticality
ESA-93-June12	1.6 Quality	Project Quality Manual (PQM): The current version of the ESA Project Quality Manual (PQM) is Revision 6, issued in February 2009. Status Update: The PQM was last revised more than 3.5 years ago and was signed by the ESA Project Executive and ESA Quality Manager, both of whom are no longer working for MTACC. *The ESA Quality Manager has committed to revise the PQM by the end of February 2013.* Recommendation: It is recommended that the PQM be revised to reflect current conditions and be signed by both the current ESA Project Executive and ESA QM..	2
ESA-94-Sep12	1.6 Quality	Quarterly Quality Oversights (QQOs): The ESA Quality Organization conducts Quarterly Quality Oversight (QQO) audits of each contract. The ESA Quality Engineer assigned to the contract conducts the oversight. Status Update: During some audits, the status of action items from the previous oversight was included in the agenda while on others, this was not addressed. On these latter audits, no exit meeting was conducted and it took 4-6 weeks to issue the audit report. Based on a recommendation from the PMOC, QQOs are now conducted by an independent Quality Engineer from another contract. Action items from the previous QQO are reviewed and exit meetings are conducted. Resolution: *The ESA Quality Manager implemented the PMOC's recommendation and this issue was closed in October 2012.*	2
ESA-95-Sep12	2.3 Construction: Queens	Contract CQ032: The PMOC is concerned about the potential cost and schedule impacts to the CQ032 contract resulting from the access delays created by late turnover of work areas by the CM009/019, CQ031 and CQ039 contractors.	1

Number/ Date Initiated	Section	Issues/Recommendations	Criticality
		Status Update: *As of November 30, 2012, the overall impact of these turnover delays remains 9 months.* Recommendation: The PMOC recommends that the MTACC PMT, working with the CM009/019, CQ031, CQ032 and CQ039 contractors and the respective ESA construction managers, develop a plan to expedite turnover of the required areas and closely monitor the execution of the plan.	
ESA-96-Sep12	1.5 Safety and Security	Safety Certification Process: The PMOC is concerned about the fact that personnel assigned to the Safety Certification Committee are continually changing; thus hampering the continuity and effectiveness of the Committee. The PMOC is also concerned that the Safety and Security Committee has not met on a regular basis as per the ESA SSMP. This lack of regular meeting will hamper the effectiveness of the Committee in coordinating activities related to the Safety Certification Process. Status Update: The Safety Certification Committee met on November 20, 2012. Recommendation: The PMOC recommends that the Safety Certification Committee produce a calendar for regularly scheduled meetings and adhere to it. The PMOC also recommends that the MTACC Safety Director stress the need to maintain a stable committee to all of the participating stakeholder's having representation on the Committee.	2
ESA-97-Sep 12	1.9 Project Risk Monitoring and Mitigation	Risk Monitoring: The MTACC committed that ESA would hold monthly risk meetings with the PMOC to review current risk related activities at the end of 4Q2012. Status Update: *As of this report, MTACC has not scheduled a risk review meeting.* Recommendation: The PMOC recommends that these meetings be established as soon as possible in the next quarter.	1
ESA-98 Sep 12	4.4 Schedule Contingency Analysis 5.6 Cost	ELPEP Contingency Drawdowns: The schedule and cost contingency drawdown plans in the ELPEP document have been superseded by the new schedule and cost baseline. Status Update: *The latest IPS update has 299 days of contingency. This is a usage of two months contingency before establishing the ELPEP contingency drawdown.*	1

Number/ Date Initiated	Section	Issues/Recommendations	Criticality
	Contingency Analysis	Recommendation: MTACC needs to update the ELPEP document and create new contingency drawdown plans.	
ESA-99-Dec12	*5.2 Project Cost Management and Control*	*The PMOC is concerned about the lag of invoiced amount for construction and total project to date compared to the Forecast amount in the re-baseline cash flow. This continues the trend of ESA historically not keeping up with its monthly expenditure plans.* *Recommendation: ESA should reforecast its monthly cash flow curve, linking to the adjusted schedule forecast, and extend the likely date for the end of the payout curve.*	*1*
ESA-100-Dec12	*1.6 Quality*	*As-Builts: Three contractors have been delinquent in submitting their as-builts as required by contract.* *Status: A Surveillance is scheduled for January 11, 2013 with the CH053, CH054A, and CQ032 contractors. A list of items required at the time of the surveillance was provided to the Contractor. The PMOC has been invited to attend the surveillance.* *Recommendation: The PMOC is in agreement with the actions being taken by the ESA Quality Manager (performing a surveillance).*	*2*
ESA-101-Dec12	*Section 2.3 Construction (FHL02)*	*The PMOC remains concerned that the LIRR can produce the quantity of SSWPs that will be required for future construction on the fast pace that will dictate their need.* *Recommendation: The PMOC recommends that the LIRR begin to develop its SSWPs for 2013 and 2014 immediately so that it can stream-line all decisions and engineering that lead to a completed SSWP.*	*2*
ESA-102-Dec12	*Section 2.2 Procurement*	*The PMOC is concerned about the need to utilize a significant amount of project contingency for procurement activities. Since the CM012R and CS179 packages were/are on the project critical path; and CH057 and CM014B are near critical; the PMT needs to determine the impact of the delays of these procurements on the overall project contingency.* *Recommendation: The ESA PMT needs to determine the impact to the overall project schedule of the delays to the procurements referenced above.*	*1*

Number/ Date Initiated	Section	Issues/Recommendations	Criticality
ESA-103-Dec12	*Section 2.1 Engineering Design*	*The GEC and PMT continue to consistently miss all of its target dates for remaining design activities on the project. In several instances (CM014B; CH057), this has resulted in delaying the procurement packages.* *Recommendation: The PMOC recommends that the PMT develop a design milestone tracking sheet for the remaining design work on the project, similar to what was done for the catenary design work, in order to more effectively manage the design effort.*	*2*

8.0 GRANTEE ACTIONS FROM QUARTERLY AND MONTHLY MEETINGS

Priority in Criticality column

1 – Critical

2 – Near Critical

Number with Date Initiated	Section	Grantee Actions	Criticality	Projected Resolution Date
ESA-A40-Jan11	5.3 Cost Variance Analysis	The PMOC recommends that the ESA-PMT document the relationship between the Budget Adjustment process and the Project Working Estimate (PWE). Status Update: The ESA-PMT had committed to providing a procedure by the 3Q2011 but, as of November 30, 2012, this has not occurred. Resolution: *At the December 20, 2012 Cost Review Meeting, ESA PMT provided the requested explanation of Budged Adjustment process, consequently this item will be closed.*	1	9/30/12
ESA-A44-Dec12	*5.6 Project Cost Contingency Analysis*	*Contract CM012: The PMOC is concerned about the potential cost and schedule impacts to the program from the Bid received in October 2012 which were nearly $40M over the Expected Bid Amount. ESA has not provided any projections on cost or schedule impacts.* *Status Update: As of the November 2012 Cost Meeting ESA PMT was not showing any of the overage in the EAC values and simply planned to create 9 packages (including MODS and new bid packages) to address the scope.* *Recommendation: The PMOC recommends that ESA PMT observe the requirements of their Cost Management (specifically Sections 5.3, 5.4, and 5.7) and the referenced MTACC Procedure AD.04 (specifically sections 4.3 and 4.4), and provide credible forecasts of cost and schedule impacts and the Estimated Program costs on a timely basis.*	*1*	*2/28/13*

Number with Date Initiated	Section	Grantee Actions	Criticality	Projected Resolution Date
ESA-A45-Dec12	*Section 2.2*	*MTACC committed at the December 12, 2012 CM012R post bid de-brief to provide FTA/PMOC with preliminary schedule impacts of CM012R bid cancellation within approximately two weeks from the meeting.*	*1*	*1/11/13*
ESA-A46-Dec12	*Section 4.2*	*The ESA PMT agreed at a meeting held with FTA/PMOC on July 30, 2012 to develop a set of critical metrics jointly with the FTA/PMOC and MTA IEC that would be used as an early indicator of issues that need to be addressed by senior management. The need to do this was re-iterated at the November 8, 2012 ESA/SAS mini-quarterly meeting.*	*2*	*1/31/13*

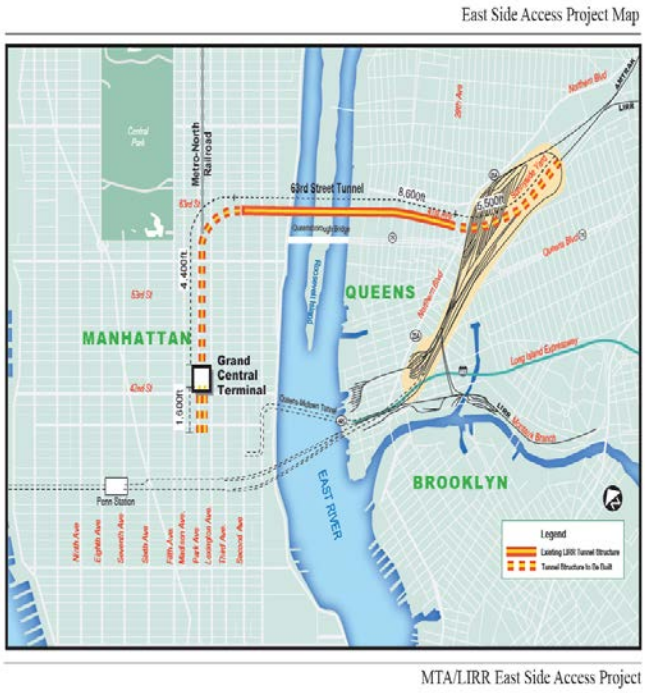
APPENDIX A -- LIST OF ACRONYMS

AFI	Allowance for Indeterminates
ARRA	American Recovery and Reinvestment Act
BA	Budget Adjustment
CBB	Current Baseline Budget
CCC	Change Control Committee
CCM	Consultant Construction Manager
CM	ESA Construction Manager assigned to each contract
CMP	Cost Management Plan
CPOC	Capital Program Oversight Committee
CSSR	Contact Status Summary Report
CIL	Central Instrument Location
CPRB	Capital Program Review Board
CPP	Contract Packaging Plan
DCB	Detailed Cost Breakdown
ELPEP	Enterprise Level Project Execution Plan
EPC	Engineering-Procurement-Construction
ERT	East River Tunnel
ESA	East Side Access
FA	Force Account
FAMP	Force Account Management Plan
FHACS	"F" Harold Alternate Control System
FFGA	Full Funding Grant Agreement
FTA	Federal Transit Administration
GCT	Grand Central Terminal
GEC	General Engineering Consultant
IEC	Independent Engineering Consultant (to MTA)
IPS	Integrated Project Schedule
LIRR	Long Island Rail Road
MNR	Metro-North Railroad
MTA	Metropolitan Transportation Authority
MTACC	Metropolitan Transportation Authority Capital Construction

N/A	Not Applicable
NTP	Notice-to-Proceed
NYAR	New York and Atlantic Railroad
NYCT	New York City Transit
NYSPTSB	New York State Public Transportation Safety Board
OCO	Office of Construction Oversight (MTA)
PE	Preliminary Engineering
PEP	Project Execution Plan
PMOC	Project Management Oversight Contractor (Urban Engineers)
PMP	Project Management Plan
PMT	Project Management Team
PQM	Project Quality Manual
QA	Quality Assurance
RAMP	Real Estate Acquisition Management Plan
ROD	Revenue Operations Date
ROW	Right of Way
RSD	Revenue Service Date
SAS	Second Avenue Subway
SCC	Standard Cost Category
SMP	Schedule Management Plan
SSMP	Safety and Security Management Plan
SSOA	State Safety Oversight Agency
SSPP	System Safety Program Plan
TBD	To Be Determined
TBM	Tunnel Boring Machine
TCC	Technical Capacity and Capability
VE	Value Engineering
WBS	Work Breakdown Structure

APPENDIX B-- PROJECT OVERVIEW AND MAP

Project Overview and Map – East Side Access



Scope

Description: This project is a new commuter rail extension of the Long Island Rail Road (LIRR) service from Sunnyside, Queens to Grand Central Terminal (GCT), Manhattan, utilizing the existing 63rd Street tunnel under the East River and new tunnels in Manhattan and Sunnyside yard. Ridership forecast is 162,000 daily riders (27,300 new riders).

Guideway: This two-track project is 3.5 route miles long, it is below grade in tunnels and does not include any shared use track. In Harold interlocking, it shares ROW with Amtrak and the freight line.

Stations: This project will add a new 8 track major terminal to be constructed below the existing GCT. The boarding platforms and mezzanines of the new station will be located approximately 90 feet below the existing GCT lower level. A new passenger concourse will be built on the lower level of the terminal.

Support Facilities: New facilities will include: the LIRR lower level at GCT, new passenger entrances to the existing GCT, the East Yard at GCT, the Arch Street Shop and Yard, a daytime storage and running repair/maintenance shop facility in Queens, and ventilation facilities in Manhattan and Queens.

Vehicles: The scope and budget for the ESA project include the procurement of 160 new electric rail cars to support the initial service.

Ridership Forecast: MTA projects that, by 2020, the ESA project will handle approximately 162,000 daily riders to and from GCT. This Ridership projection is based on a 2005 study performed by DMJM/Harris (AECOM).

Schedule

9/98	Approval Entry to PE	12/10	Estimated Rev Ops at Entry to PE
02/02	Approval Entry to FD	06/12	Estimated Rev Ops at Entry to FD
12/06	FFGA Signed	12/13	Estimated Rev Ops at FFGA
08/19	Revenue Service Date at date of this report (MTA schedule)		
*47.8**	Construction Percent Complete		
*52.0**	Over-all Project Percent Complete		

**As of November 30, 2012, based on the revised baseline (May 2012)* [redacted]

Cost ($)

4,300 million	Total Project Cost ($YOE) at Approval Entry to PE
4,350 million	Total Project Cost ($YOE) at Approval Entry to FD
7,386 million	Total Project Cost ($YOE) at FFGA signed
9,744.1 million	Total Project Cost ($YOE) at Revenue Operations
9,744.1 million	Total Project Cost ($YOE) at date of this report including $ 1,036.1 million in Finance Charges
4,124.5 million	*Amount of Expenditures as of November 30, 2012 based on the Total Project Budget of $8,708 million*
47.3	*Percent Complete based on the current budget of $8,708 million and expenditures in the November 30, 2012 report*
[redacted]	[redacted]

APPENDIX C – LESSONS LEARNED

#	Date	Phase	Category	Subject	Lessons Learned
1	*Dec-12*	*Construction*	*Construction*	*Muck Handling*	*During cavern excavation, the CM019 contractor became muck-bound, which caused a project delay of several months. The PMOC recommended that the contractor make extraordinary effort to evacuate the muck. After several months, it finally did, but the schedule time could not be recovered by that point. Lesson learned was to develop a well thought out muck handling plan (including establishment of proper haul roads) before work begins and to follow it during excavation.*
2	*Dec-12*	*Construction*	*Management*	*Stakeholder Management*	*The CH053 contractor incurred many months of initial construction delay because Amtrak did not approve the Electric Traction design documents on the project's schedule. A major contributing factor to this was because the MTACC had not established a contractual working relationship with Amtrak prior to letting the CH053 contract. The PMOC recommended that the MTACC and its GEC more closely design the project in accordance with the comments that Amtrak was submitting. To date, the MTACC has exhibited some improvement in this matter, but there are still 2+ Stages to construct, and improvement has not been fast enough or consistent over time. Lesson learned was to develop good working relationships with all project stakeholders before any contracts are let.*

[redacted]

APPENDIX E – SAFETY AND SECURITY CHECKLIST

Project Overview			
Project mode (Rail, Bus, BRT, Multimode)	Rail		
Project phase (Preliminary Engineering, Design, Construction, or Start-up)	Construction		
Project Delivery Method (Design/Build, Design/Build/Operate/Maintain, CMGC, etc.)	Primarily Design Bid/Build		
Project Plans	**Version**	**Review by FTA**	**Status**
Safety and Security Management Plan	12/2010 Rev. 2	2012	PMOC sent its comments to FTA in July 2012 recommending conditional acceptance.
Safety and Security Certification Plan	11/2008 Rev. 1		NA
System Safety Program Plan	11/2008 Rev. 1		NA
System Security Plan or Security and Emergency Preparedness Plan (SEPP)	11/2010		NA.
Construction Safety and Security Plan	3/2007 Rev. 1		*Project Construction Safety and Security Plan, contractors' site specific safety and security plans, and LIRR Operational Readiness Group 7, is part of the LIRR SSPP.*
Safety and Security Authority	**Y/N**		**Notes/Status**
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		The New York State Public Transportation Safety Board (NYSPTSB) is the SSOA.
Has the oversight agency reviewed and approved the grantee's SSPP as per Part	In Development		The Grantee is currently in communication with a representative of NYS

Project Overview		
659.17?		SSOA.
Has the oversight agency reviewed and approved the grantee's Security Plan or SEPP as per Part 659.21?	In Development	The New York State Public Transportation Safety Board (NYSPTSB) is the SSOA.
Did the oversight agency participate in the last Quarterly Program Review Meeting?	N	The NYS SSOA does not attend. Grantee to transmit SSMP to SSOA through the Grantee's System Safety Dept.
Has the grantee submitted its safety certification plan to the oversight agency?	N	To the best of the PMOC's knowledge, the grantee has not submitted its safety certification plan to the NYS SSOA.
Has the grantee implemented security directives issues by the Department Homeland Security, Transportation Security Administration?	N	The MTA unified threat vulnerability methodology was applied to the ESA design. A vulnerability log was developed for ESA based on the feedback from the applied methodology. Controls within the design have been implemented to reduce the relative risk of those vulnerabilities identified. Analysis indicated that the controls within design were adequate for the vulnerabilities identified.
SSMP Monitoring	**Y/N**	**Notes/Status**
Is the SSMP project-specific, clearly demonstrating the scope of safety and security activities for this project?	Y	

Project Overview		
Grantee reviews the SSMP and related project plans to determine if updates are necessary?	*In review by MTACC Assistant Chief of Safety and Security.*	*The Grantee updated the SSMP as of 12/2010. A current update is to be undertaken in the first quarter of 2013.*
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	*The Assistant Chief of Safety and Security for the MTACC meets regularly with the project management team. Additionally, the CCM and the Grantee's safety and security personnel are integrated into the management team. Additionally, achieved through implementation of ESA HASP, monthly project wide safety meetings, quarterly audits, OCIP inspections, and interface w/ MTA Police and NYPD Infrastructure Protection Unit of the NYPD's Counter-Terrorism Division.*
Does the grantee maintain a regularly scheduled report on the status of safety and security activities?	Y	Safety and Security are reported on during the monthly safety meeting and are incorporated into Grantee's monthly project reports.
Has the grantee established staffing requirements, procedures and authority for safety and security activities throughout all project phases?	Y	Contained within the Grantee's safety procedure documents.
Does the grantee update the safety and security responsibility matrix/organizational chart as necessary?	Y	To be incorporated into the next revision of the SSMP.
Has the grantee allocated sufficient resources to oversee or carry out safety	Y	*MTA, GEC, CCM, and contractors provide*

Project Overview		
and security activities?		*personnel and resources to carry out safety and security activities. Additionally, an MTACC consultant conducted a safety and security review of all MTACC projects. The consultant's report included programmatic and system security recommendations that are currently being reviewed by MTACC and MTA Police.*
Has the grantee developed hazard and vulnerability analysis techniques, including specific types of analysis to be performed during different project phases?	Y	The SSMP Committee process is comprehensive and provides for this.
Does the grantee implement regularly scheduled meetings to track to resolution any identified hazards and/or vulnerabilities?	Y	SSMP committee meetings as well as project wide monthly safety meetings take place.
Does the grantee monitor the progress of safety and security activities throughout all project phases? Please describe briefly.	Y	Accomplished through daily audits by contractor and CCM and through the comprehensive SSMP Committee process.
Does the grantee ensure the conduct of preliminary hazard and vulnerability analyses? Please specify analyses conducted.	Y	The SSMP Committee process provides for TVRA, safety, and security analysis as well as input from subject matter experts on the SSMP Committee.
Has the grantee ensured the development of safety design criteria?	Y	The SSMP Committee has established the safety design criteria.

Project Overview		
Has the grantee ensured the development of security design criteria?	Y	Accomplished through the SSMP Committee process.
Has the grantee ensured conformance with safety and security requirements in design?	Y	Achieved through the SSMP Committee process.
Has the grantee verified conformance with safety and security requirements in equipment and materials procurement?	N	The grantee has not verified conformance for materials procured to date.
Has the grantee verified construction specification conformance?	Y	*Through ongoing contract review*.
Has the grantee identified safety and security critical tests to be performed prior to passenger operations?	N	*Although the Grantee has established preliminary hazard analysis (PHA) and a system test plan, the Grantee needs to identify safety and security critical tests in its Test Program Plan.*
Has the grantee verified conformance with safety and security requirements during testing, inspection and start-up phases?	In Development	Project is not at these phases yet.
Does the grantee evaluate change orders, design waivers, or test variances for potential hazards and /or vulnerabilities?	In Development	Systems area design modifications not originally evaluated per the unified methodology are analyzed and controls are incorporated into the design. As an example, during this quarter, there was a change in the use of a room originally designed for security system racks. The room is now to be utilized as an HVAC/MEP. Potential hazards and/or vulnerabilities were

Project Overview		
		evaluated by stakeholders including the LIRR Security Department.
Has the grantee ensured the performance of safety and security analyses for proposed workarounds?	In Development	
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	An Emergency Preparedness Plan was promulgated by the Grantee in 11/2010. The Emergency Preparedness Plan has now developed into an Emergency Action Plan (EAP). The EAP operational readiness group has been finalized to include MNR, LIRR, MTAPD, and FDNY.
Has the grantee issued final safety and security certification?	N	Project is not at this stage.
Has the grantee issued the final safety and security verification report?	N	Project is not at this stage.

APPENDIX F – ON-SITE PICTURES

(to be sent in a separate file)

APPENDIX G

PMOC Contract CM009/CM019 Milestone Analysis[1], [2]

▪ *December* 2012 Monthly Report Update

Original Milestone/ Revised Milestone	Description	ESA 1/27/12 Re-Baseline Contract Schedule[3]	PMOC "Optimistic" Projection	PMOC "Most Likely" Projection	Comments
1A	Turnover of Escalators 3 & 4 Turnover of Shaft 2	7/1/12 (A)	*6/29/12 (A)*	*6/29/12 (A)*	
1B	Turnover of Escalators 2, 3, 4	9/27/12	9/1/12	*9/27/12 (A)*	
3 4	Turnover Westbound Cavern Turnover Eastbound Cavern	12/19/12 *6/1/13*	*1/14/13* 6/1/13	*1/31/13* 7/1/13	
9	Substantial Completion	8/31/13	*6/1/13*	*7/1/13*	
1C	Turnover of Escalator 1	*12/14/12 (A)*	11/1/12	*12/14/12 (A)*	

[1] The Complete CM009/CM019 Milestone Analysis is on file in PMOC's office for review.

[2] Original milestones 4A and AR 3, which were established for construction of vertical Shaft #1, were deleted from the CM019 contract as a result of the January 27, 2012, universal settlement. Therefore, they have been deleted from this appendix. *Other original milestone descriptions have been changed to correspond with the current re-baselined milestones.*

[3] *Revised milestone dates as reported by the MTACC in its November 2012 Monthly Report (latest one available to PMOC).*

APPENDIX H

COST ANALYSIS TABLES

Table H-1: ESA Planned Cash Flow

Quarter/ year	Construction $(000)	Engineering $(000)	OCIP $(000)	Project Mgmt. $(000)	Real Estate $(000)	Rollin Stock $(000)
Remaining	**3,378,075**	**72,979**	**70,377**	**320,650**		**665,000**
2Q2012	0	0	0	0	0	0
3Q2012	222,294	4,316	6,491	19,004	27,996	0
4Q2012	210,086	4,316	0	19,231	12,762	0
1Q2013	197,258	4,222	13,158	18,693	100	0
2Q2013	140,095	4,269	0	18,300	100	0
3Q2013	88,877	4,316	0	17,696	25,065	0
4Q2013	107,716	4,316	0	17,842	0	133,000
1Q2014	133,847	2,451	16,724	18,016	0	2,015
2Q2014	187,386	2,478	0	17,870	0	6,045
3Q2014	231,954	2,506	0	17,244	0	50,761
4Q2014	253,979	2,506	0	17,000	0	50,761
1Q2015	260,374	2,451	18,186	16,146	0	50,761
2Q2015	270,030	2,478	0	15,630	0	50,761
3Q2015	272,517	2,506	0	14,082	0	50,761
4Q2015	246,154	2,506	0	13,742	0	50,761
1Q2016	194,243	2,478	15,818	12,390	0	50,761
2Q2016	143,159	2,478	0	12,046	0	50,761
3Q2016	90,925	2,506	0	11,260	0	50,761
4Q2016	50,410	2,506	0	11,109	0	67,091
1Q2017	25,987	2,451	0	8,481	0	0
2Q2017	14,425	2,478	0	7,519	0	0
3Q2017	10,051	2,506	0	6,377	0	0
4Q2017	9,116	2,506	0	5,352	0	0
1Q2018	5,911	2,451	0	3,497	0	0
2Q2018	5,439	2,478	0	1,649	0	0
3Q2018	4,584	2,506	0	379	0	0
4Q2018	1,256	0	0	94	0	0
1Q2019	0	0	0	0	0	0
2Q2019	0	0	0	0	0	0
3Q2019	0	0	0	0	0	0
4Q2019	0	0	0	0	0	0
Subtotal	**3,378,075**	**72,979**	**70,377**	**320,650**	**66,023**	**665,000**

Table H-2: Approved Project Change Orders Status and EAC as of November 30, 2012

Contract	Engineer's Estimate	Award Value $(000)	Approved Change Order $(000)	# of change orders	invoiced amount $(000)	Current Contract Value $(000)	% of Change Orders up to Date	% Complete to Date	Trend for 100% completion	EAC $(000)	[redacted]
CM004		40,765	1,445	51	36,297	42,210	4.15%	86.00%	5.68%	55,699	[redacted]
CM009		427,954	-16,142	37	383,160	411,812	-4.09%	93.1%	-4.45%	413,415	[redacted]
CM013		94,335	763	23	62,297	95,118	1.24%	73.2%	1.89%	99,800	[redacted]
CM019		734,000	38,344	55	769,914	772,504	5.90%	94.5%	6.61%	793,819	[redacted]
CQ031		648,884	108,064	66	677,384	756,984	20.04%	89.4%	23.39%	757,191	[redacted]
CQ039		84,950	13,458	16	76,036	98,408	25.85%	77.3%	38.82%	102,097	[redacted]
Total		**2,030,888**	**148,003**		**1,890,761**	**2,197,053**	**8.49%**	**86.06%**	**9.87%**	**2,241,566**	[redacted]
System and Finishes contracts											
CM014A		43,502	151	3	13,034	43,653	2.65%	13.43%	19.71%	46,533	[redacted]
VM014		24,170	205	4	3,015	24,621			1.0	53,086	[redacted]
Underground or aboveground structure Contracts											
CQ032		147,377	1,263	12	20,593	148,640	8.19%	13.3%	72.94%	187,698	[redacted]
CM002		4,545	0	-	4,545	4,545	0.00%	100.00%	0.00%	4,772	[redacted]
Harold Railroad Structure											
CH053		137,280	64,414	90	145,717	201,694	77.91%	71.8%	113.83%	267,802	[redacted]

Contract	Engineer's Estimate	Award Value $(000)	Approved Change Order $(000)	# of change orders	invoiced amount $(000)	Current Contract Value $(000)	% of Change Orders up to Date	% Complete to Date	Trend for 100% completion	EAC $(000)	[redacted]
CH054A		21,778	4,073	27	18,103	25,851	18.70%	70.3%	26.60%	46,199	[redacted]
Total		**378,652**	**70,106**	**136**	**205,007**	**449,004**	**18.51%**	**68.10%**	**26.19%**	**606,090**	[redacted]
Force Account Contracts											
FHA01		9,500	1,500	1	16,059	16,824	15.79%	83.8%	11.46%	16,824	[redacted]
FHA02		9,706	0	-	23,200	27,391	0.00%	48.0%	0.00%	40,540	[redacted]
FHL01		28,781	0	1	17,285	20,732	0.00%	74.0%	0.00%	21,972	[redacted]
FHL02		10,780	0	-	21,064	59,705	0.00%	20.3%	0.00%	66,199	[redacted]
VHA02		29,037	0	-	11,231	7,634	0.00%	64.00%	0.00%	29,037	[redacted]
VHL02					21,510,	15,516	0.00%	65.00%	0.00%		
VH051A		25,840	186	2	9,562	26,026	0.72%	28.52%	2.52%	30,753	[redacted]
VH051B		5,354	1,776	4	5,470	7,130	33.17%	87.00%	38.13%	8,091	[redacted]
Total		**118,998**	**3,642**	**8**	**103,871**	**180,958**	**2.91%**	**47.05%**	**6 18%**	**226,635**	[redacted]
Construction W/O FA Total		**2,409,540**	**216,038**	**384**	**2,210,095**	**2,626,040**	**8.97%**	**77.72%**	**11.54%**	**2,828,111**	[redacted]
Grand Total		**2,528,538**	**219,500**	**392**	**2,313,966**	**2,806,998**	**8.86%**	**72.04%**	**12.05%**	**3,054,746**	[redacted]

Table H-3: Federal and Local Funding Distribution

		FFGA 2006				Re-baseline 2012				
SCC No.	SCC Description	YOE Cost (X$000)	Federal 5309 New Starts Funds (X$000)	Federal Other Funds (X$000)	Local Funds (X$000)	YOE Cost (X$000)	Federal 5309 New Starts Funds (X$000)	Federal Other Funds (X$000)	Local Funds (X$000)	Difference in local funds (X$000)
10	GUIDEWAY & TRACK ELEMENTS (route miles)	1,988,741	1,239,340	11,200	738,201	2,943,135	1,156,713	37,876	1,748,546	1,010,345
20	STATIONS, STOPS, TERMINALS, INTERMODAL (number)	1,168,655	650,000	0	518,655	1,514,027	363,555	0	1,150,473	631,818
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	356,264	150,000	39,237	167,027	388,054	109,574	28,761	249,719	82,692
40	SITEWORK & SPECIAL CONDITIONS	205,105	60,000	0	145,105	487,858	131,532	0	356,326	211,221
50	SYSTEMS	619,343	278,241	0	341,102	698,309	269,118	0	429,191	88,089
60	ROW, LAND, EXISTING IMPROVEMENTS	165,280	0	0	165,280	203,639	31,962	0	171,677	6,397
70	VEHICLES (number)	493,982	0	0	493,982	674,372	0	0	674,372	180,389
80	PROFESSIONAL SERVICES	1,184,000	254,533	0	929,467	1,648,606	489,306	0	1,159,299	229,832
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
	SUBTOTAL	6,349,900	2,632,114	50,437	3,667,349	8,708,000	2,551,760	66,637	6,089,603	2,422,254
100	100 FINANCE CHARGES	1,036,104	0		1,036,104	1,116,454	80,354	0	1,116,454	80,350
	Total Project Cost (10 - 100)	7,386,004	2,632,114	50,437	4,703,453	9,824,454	2,632,114	66,637	7,206,057	2,502,604
	Percentage of Total Project Cost	100%	35.6%	0.7%	63.7%	100%	26.8%	0.7%	72.5%	

Appendix I--Core Accountability Items – December 2012

Project Status:		Original at FFGA	Current*:	ELPEP **
Cost	Cost Estimate	$7.386B	$9.824B	$8.119B
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
	[redacted]	[redacted]	[redacted]	[redacted]
	[redacted]			
Schedule	Revenue Service Date	December 31, 2013	September 2019	April 30, 2018

Total Project Percent Complete		
	Based on Expenditures	52
	Based on Earned Value	NA

Major Issue	Status	Comments
Major Upcoming Procurements	CM012R (Manhattan Structures 2) bids were received on October 24, 2012. Lowest bid was approximately $350 million above MTACC estimate and the solicitation was subsequently canceled. This package is on the project critical path.	Results of this procurement have a major impact on project cost and schedule baseline. ESA is currently working on repackaging the work and has made a preliminary estimate of a two month drawdown on schedule contingency.
Major Upcoming Procurements	Procurement of CS179 (Systems Package 1 continues to slip. NTP forecast date of December 1, 2012 was not met. New forecast date for NTP is April 1, 2013	This package is on the project critical path and current delay will impact project schedule contingency. Impact of CM012R on this procurement is being evaluated.
Major Storm Impacts Queens Work (Hurricane Sandy)	A major storm hit NYC on October 29, 2012. While ESA project infrastructure did not suffer significant damage, Railroad force account resources required to support 3rd party Harold contracts were diverted to deal with storm recovery activities on both LIRR and Amtrak.	Major impact is unavailability of LIRR and Amtrak force account resources to support ESA; time of restoration of these resources will determine schedule impact. ESA is currently estimating a three month impact.
Amtrak East River Tunnel Work	Amtrak original plan for two tunnel outages during 2012 has been changed to one tunnel. Broken rail repair in early 2012 has delayed Amtrak work on ERT. Schedule impact review	ESA re-baseline was initially based on two tunnel outages. Impact (if any) on new baseline has to be evaluated and impact of ERT shutdowns as a result of the storm will also have to be

	has not yet been submitted to the FTA. Work on the tunnels ceased at the end of October 2012 as a result of hurricane Sandy.	evaluated.
Amtrak Integrated Master Schedule	Develop an integrated master schedule that will lay out the upcoming Amtrak projects (Moynihan, ERT Track Rehab., Brookfield, etc.) and overlay the ESA work at Harold. This schedule has not yet been provided to the FTA.	MTACC reported at the June 2012 Executive Meeting that work on this schedule would begin shortly; however there is no indication at this time that development of the schedule has begun. This issue was discussed at the November 8, 2012 Quarterly Review Meeting
Next Quarterly Meeting:	TBD	

* Note that $9.824B (finance included) and the September 2019 RSD are the MTA cost and schedule baselines in the FFGA amendment.

** 2010 Enterprise Level Project Execution Plan (ELPEP) reflecting medium level of risk mitigation. ELPEP to be updated