

## **PMOC MONTHLY REPORT**

### **East Side Access (MTACC-ESA) Project**

Metropolitan Transportation Authority

New York, New York

Report Period August 1 to August 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

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## **THIRD PARTY DISCLAIMER**

This report and all subsidiary reports are prepared solely for the Federal Transit Administration (FTA). This report should not be relied upon by any party, except FTA or the project sponsor, in accordance with the purposes as described below.

For projects funded through FTA Full Funding Grant Agreements (FFGAs) program, FTA and its Project Management Oversight Contractor (PMOC) use a risk-based assessment process to review and validate a project sponsor's budget and schedule. This risk-based assessment process is a tool for analyzing project development and management. Moreover, the assessment process is iterative in nature; any results of an FTA or PMOC risk-based assessment represent a "snapshot in time" for a particular project under the conditions known at that same point in time. The status of any assessment may be altered at any time by new information, changes in circumstances, or further developments in the project, including any specific measures a sponsor may take to mitigate the risks to project costs, budget, and schedule, or the strategy a sponsor may develop for project execution. Therefore, the information in the monthly reports will change from month to month, based on relevant factors for the month and/or previous months.

## **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 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**

### **1.0 PROJECT STATUS**

#### **a. Design**

*As of July 31, 2012, MTACC reported that the Engineering/Design effort remained at 89.1% complete.*

*Amtrak has approved the 60% Stage 3 Catenary package in August 2012, that was submitted in April 2012; consequently the 90% catenary design package which was to have been submitted in June 2012, has been delayed. The ESA consultant responsible for the quality assurance review of the E/T designs is currently reviewing the 90% design package; with a goal of completing its review and forwarding the package to Amtrak for approval by mid-September 2012. Continuing delay in finalizing and obtaining Amtrak approval of the Stage 3 90% catenary design could impact the CH058 procurement (target for completion of 90% design was July 2012).*

*The 30% review set for the 48<sup>th</sup> Street entrance to GCT (CM015) was completed by the GEC and forwarded to LIRR and MNR for comment. Coordination with the property owners for review of design progress is forthcoming. The PMT is forecasting completion of the 60% design review set for mid-November, 2012.*

*Although the ESA Design Management team states that the design package for CH057 is complete and will be bid by mid-September 2012, Amtrak still needs to approve the method of installing the slab under mainline track. The PMT would like to install the slab utilizing a double track outage; Amtrak will only allow a single track outage. The PMT has stated that they will advertise the package and issue an addendum if this issue is not resolved in time.*

*The 90% submittal for CH058 was previously forecast by ESA for the end of July 2012; this date is now forecast for mid-November 2012. The design of the Eastbound Re-route structure is being revised to permit construction with minimum impact to railroad operations.*

Comments were received on over 100 items on July 20, 2012 from the on-board review with Metro-North Railroad (MNR) of the CM014B final design held on April 25, 2012. *Responses to these comments are being finalized and additional design modifications related to support of improved access for CM012 and the Biltmore Transformer House Configuration. The bid date, which was previously forecast for mid-September 2012, will not be met. The PMT is reviewing the revised bid date forecast and preliminary indications are that this package will not be ready to bid until December 2012.*

## **b. Procurement**

*As of the end of July 2012, the total procurement activity on the project was reported to be 54.8% complete, with \$4.781 billion in contracts awarded out of the \$8.708 billion revised budget.*

The CM012 solicitation was cancelled in November 2011 and the solicitation was reissued on March 12, 2012, with modifications to the Contract bid package based upon discussions with perspective bidders after the cancellation of the previous solicitation. Bid due dates continue to slip since the June 2012 reporting period (bids were previously due on May 8, 2012, May 22, 2012; May 30, 2012; June 20, 2012, July 10, 2012, and August 15, 2012) due to the issuance of several addenda, *and the latest bid date is currently forecast for October 11, 2012; revised from September 30, 2012 last month.* The latest addendum transfers civil scope from the CS179 Systems Contract 1 back into the CM012 contract package. Consequently, the PMT adjusted its forecast of Notice to Proceed (NTP) from September 2012 to December 2012. This delay will possibly impact the CM014B and CS179 contracts, which have interfaces with the CM012 Contract. The PMOC notes that CM012 contract package is on the IPS critical path.

Of particular concern is the continuing slippage of the proposal due date for the CS179 package. The ESA-PMT previously transferred a significant amount of work (by addenda) that is not systems-related into the CS179 package including: the tunnel bench walk, the 63<sup>rd</sup> Street tunnel rehabilitation work, and various scope items in the Manhattan running tunnels, which ESA-PMT has now decided to take out of CS179 Contract and transfer into CM012. Information meetings addressing cost and schedule questions were held with proposers during the months of June and July 2012. The addendum for transferring scope into CM012 was issued in August 2012 and revised cost proposals were received on August 30, 2012. *The PMT is planning to issue another addendum in early September 2012 requesting that bidders provide a manpower lower schedule that incorporates the milestones and access constraints provided in a previous addendum. Given the current status and complexity of this procurement, as well as the large dollar value, the PMOC believes that it is very unlikely that the Selection Committee will have a recommendation for award ready in time to present at the October 2012 MTA Board meeting as is currently*

forecast; and to subsequently issue an NTP by November 1, 2012. The PMOC notes that CS179 is on the IPS critical path.

The CM013A Contract was awarded on August 29, 2012.

### **c. Construction**

MTACC reported in its July 2012 monthly report that the total construction progress reached 44.9 % complete on a cost invoiced basis, in accordance with its re-baselined budget of May 2012. Details for each of the contracts are provided below.

**Manhattan: CM009/019 Contracts – Manhattan Tunnels Excavation/Structures Part 1:** As of July 31, 2012, the total amount invoiced for CM009 was \$377,687,000, which represents 91.7% of the Current Contract Value of \$411,811,000. Thirty-seven (37) contract modifications for a total credit of \$16,142,240 (including scope transfers) have been executed. Actual work performed, calculated with the re-baselined schedule, is 91.7% versus 93.7% planned.

As of July 31, 2012, the total amount invoiced for CM019 was \$671,276,000, which represents 87.0% of the Current Contract Value of \$772,010,000. Fifty-one (51) contract modifications for a total of \$38,010,115 have been executed. Actual work performed, calculated with the re-baselined schedule, is 86.9% versus 83.4% planned.

As of July 31, 2012, the Contractor completed excavation of the benches in the Westbound Cavern, the T402 bench of the Eastbound Cavern, and Phases 3 and 4 of the 55<sup>th</sup> St. vent plant; continued excavation of the T401 bench in the Eastbound Cavern, GCT 1&2 East, and TT1, preparation for mudslab placement in the crossflue, and structural re-framing in the Bellmouth in Queens; and began the Phase 6 excavation at the 55<sup>th</sup> St. vent plant and preparations to pour concrete in the assembly chamber.

The revised Substantial Completion date included in the July 2012 ESA Monthly Report (the latest one available to the PMOC) is August 31, 2013, although the MTACC has forecast an early Substantial Completion (SC) date of June 1, 2013. The PMOC notes that, since late 2011, the Contractor continues to make very good construction progress and believes that the August 31, 2013 SC date is achievable. The PMOC also notes that the MTACC continues to delete scope from the two contracts (as noted in its July 2012 Monthly Report) in an effort to achieve the early SC date of June 1, 2013. The PMOC believes that, although this may result in achievement of the early SC date for CM009/CM019, these apparent time savings may not improve the overall project schedule due to the additional scope that will be added to follow-on contracts.

**CM013 – 50<sup>th</sup> Street Vent Facility:** As of July 31, 2012, the total amount invoiced was \$60,548,000 for CM013 and \$24,665,000 for CM013R (work performed by the property owner), for a total of \$85,213,000, which represents 69% of the Current Total Contract Value of \$123,118,000. There have been twenty three (23) contract modifications executed for a total of \$763,338 and MTACC continues to report that the project is within budget. Actual work completed is 63.1% versus 62.7% planned (note: planned did not change from last month, PMOC believes this is a reporting error on the part of the PMT).

During August 2012, the primary focus of the contract was concrete placement to the basement walls of the Vent Plant as well as the deep shaft, where only the final lifts at the north, east and portions of the west wall remain. Completion of the basement and deep shaft wall concrete will

*allow work to shift to the erection of structural steel. At the Service Tunnel work continued with the forming and rebar installation for the upcoming placement of the 2<sup>nd</sup> Basement level roof. The reconstruction of the access drive from 49<sup>th</sup> St. continues. Structural steel work for the utility chase at the southeast of the site at the 300 Park building is complete.*

*The fixed crane at 50<sup>th</sup> St. is scheduled to be removed once the heaviest pieces of steel are set and a mobile crane will come in to finish the steel erection. The mobile crane will be able to maneuver to allow access to utility work on 50<sup>th</sup> Street during the holiday moratorium.*

**CM004 – 44<sup>th</sup> Street Demolition and Fan Plant Structure:** *As of July 31, 2012, the total amount invoiced was \$35,439,000, which represents 84% of the Current Total Contract Value of \$42,209,000. MTACC reports that the scope change to leave the Gantry Crane in the Vent Plant in order to accommodate CM012 access has been negotiated for \$416,500. MTACC also reports that the scope revisions to the structural steel and building façade to allow for the crane have been negotiated for \$1,120,000. MTACC Procurement is preparing the contract modifications. As of July 31, 2012 fifty (50) contract modifications have been executed for a total of \$1,144,632. Twelve (12) have been negotiated for a total of \$3,380,188, and are pending execution. Actual work performed is 84.5% versus 100% planned.*

*MTACC reports in the July 2012 Monthly report the extended dates for Substantial Completion of the Vent Plant as January 10, 2013; and 245 Park Ave. as September 17, 2012.*

*During August 2012, at the 44<sup>th</sup> St. Vent Plant, the contractor completed the test and production blasting in the shaft down to Elevation 223. This was that additional scope work that was transferred from CM019 to this Contract. Safety checks in the shaft were completed and preparations began for muck operations and shaft lining.*

*At 245 Park, the Contractor continued to coordinate with MNR on the punch list items and meet weekly. The scheduled opening of the entrance continues to be September 16, 2012.*

*As previously reported in the PMOC's June 2012 monthly report, the original fabricator contracted to provide the structural steel has gone out of business. The CM004 Contractor has proceeded with the legal action required to get the amount of previously fabricated and stored steel released. Concerned that this process could extend past the current substantial completion date, the contractor has hired a new fabricator to provide steel for the entire job (original contract steel and revised steel).*

*Negotiations are ongoing for an extension of time that includes the scope of the revised Gantry crane; revised steel; and blasting in the shaft.*

**CM014A – Concourse and Facilities Fit-Out:** *As of July 31, 2012, the total amount invoiced was \$4,435,000, which represents 10% of the Current Total Contract Value of \$43,502,000. There has been one (1) contract modification with no dollar value and MTACC reports that the project is currently within budget. Actual work performed is 10.2% versus 13.4% planned.*

*During August 2012, the contractor has occupied the site and commenced work constructing manholes and electrical duct banks for permanent Con Ed power feeds at the Garage. At Shaft #2, the contractor has begun submittals for the scaffolding to the MTACC Code Compliance Office and commenced bringing materials to the site area. At the Concourse, survey and layout continued at the site, along with trench excavation, air tunnel excavation, rock excavation for utility connections, underground plumbing installation, placement of conduits, forming of duct*

*banks and miscellaneous demolition, removal and importation of new fill. HVAC duct installation continued for climate control in the electrical rooms.*

*The MTACC CM has advised the PMOC of a potential Buy America issue with the equipment supplier over the switchgear they are fabricating for the Contract. The GEC has stated that the “core” of the switchgear is made in China. The equipment supplier must provide MTA with a letter stating that the equipment complies with Buy America, which will be reviewed by MTA Legal.*

*Previously, the PMOC has reported that the volume of revised design documents reached over 240. This has impacted the submittals approval and ordering of the SCADA, transformer and switchgear equipment and has impacted the proper placement of under-slab electrical conduit as well as impacting the manufacture of the switchgear.*

**Queens: CQ031 – Queens Bored Tunnels and Structures:** *As of July 31, 2012, the Estimate at Completion (EAC) was increased by \$10.0 million from \$756.0 million to \$766.0 million that reflects work scope transfer additions to the contract. The forecast Substantial Completion date remained the same at April 2013, a 6-month delay to the original date. Based on the latest data available from the grantee, cumulative actual percent complete is 84.1% versus planned 96.2% on a cost expenditure (invoiced) basis, and 94% of the contract time to Substantial Completion has elapsed. Fifty-nine (59) contract modifications (change orders) totaling \$110.9 million have been approved and represent 14.5% of the current EAC. The July 2012 IPS update (data date August 1, 2012) shows that CQ031 has 126 CDs of schedule float. TBM mining of the Yard Lead Tunnel, the Track A Tunnel, the Track D Tunnel, and the Track B/C Tunnel has been completed.*

*During July 2012, the contractor continued: construction of the cross passage at the Yard Lead Emergency Exit; construction of final portions of the Yard Lead Approach Structure; construction of the C.O.8 Substation; and erection of structural steel for the Yard Lead Emergency Exit and Substation B13. The contractor commenced excavation and installation of support-of-excavation for the WBBY at the Honeywell Street Bridge.*

**CQ032 Contract – Plaza Substation and Queens Structures:** *As of July 31, 2012, the EAC remained at \$165.1 million and the forecast Substantial Completion recovered 6 months from May 2015 to November 2014, reflecting changes to the schedule Access Restraints caused by the delay in getting access to the Milestone 1A area from the CQ039 contractor. As of July 31, 2012, based on the latest data available from the grantee, the cumulative actual percent complete is 9.8% versus planned 10.6% on a cost expenditure (invoiced) basis.*

*The Contractor has mobilized at the existing Roosevelt Island, Vernon Boulevard, 12<sup>th</sup> Street, 23<sup>rd</sup> Street and 29<sup>th</sup> Street ventilation facilities and continues asbestos and lead paint abatement, selective demolition work, installation of temporary power and lighting, removal of mechanical equipment, fire line repairs, erection of shoring towers and modifications to platforms, floors and stairways, . The contractor completed construction of the foundation walls for the B10 Substation. The July 2012 IPS update (data date August 1, 2012) shows that CQ032 has 126 CDs of schedule float.*

**CQ039 Contract – Northern Boulevard Crossing:** *As of July 31, 2012, the EAC remained the same at \$102.1 million and the forecast Substantial Completion slipped one month from April 2013 to May 2013, a 9month delay to the revised Substantial Completion date of August 2012*

and a 19-month delay to the original date of October 2011. As of July 2012, based on the latest data available from the grantee, the cumulative actual percent complete is 64.1% versus planned 97.2% on a cost expenditure basis, and 100% of the Contract time to the current approved Substantial Completion date has elapsed. For the July 2012 period, the actual percent complete was 4.1%, versus planned 0.8%. Tunnel mining commenced on April 30, 2012. The July 2012 IPS update (data date August 1, 2012) shows that CQ039 has 126 CDs of schedule float.

**Harold Interlocking: CH053 Contract – Harold Structures Part 1 and G02 Substation:** As of July 31, 2012, the EAC remained the same at \$267.8 million. The forecast Substantial Completion remained the same at December 2013, 23 months later than the current approved plan and 40 months later than the original plan. For this reporting period, based on the latest data available from the grantee, cumulative actual percent complete is 71.8% versus planned 100% on a cost expenditure (invoiced) basis, and 100% of the revised Contract time to Substantial Completion has elapsed. For the July 2012 period, the actual percent complete was 3.6% versus an unspecified planned percentage (the PMOC notes that the Contractor is re-baselining the schedule). The PMOC notes that the PMT replaced the CH053/54A Construction Manager in August 2012. Construction work continued on the following: the civil portion of the 12kV duct bank and foundations for catenary poles and signal towers at various locations in Harold Interlocking; excavation for Retaining Wall 39-N1; erection of catenary poles and signal towers; micro-tunnel runs 3/4 and 6/7; fabrication of catenary poles; internal wiring and equipment testing for the G.O.2 Substation; and installation of support-of-excavation for demolition of the existing abutment wing wall for construction of the new WBBY west abutment foundations. The July 2012 IPS update (data date August 1, 2012) shows that CH053 is near critical, with 15 Calendar Days (CDs) of schedule float.

**CH054A Contract – Harold Structures Part 2A:** The EAC remains at \$46.2 million. The forecast Substantial Completion date has slipped one month to June 2013, 30 months later than both the original and current approved plan date of December 2010.

As of July 31, 2012, based on the latest data from the grantee, the cumulative percent complete was only 62.9% versus planned 83.1% on a cost expenditure (invoiced) basis and based on a forecast progress curve. Substantial Completion was to have been achieved in December 2010. The PMOC notes that the contract has not been modified to reflect the current forecast substantial and final completion dates. The July 2012 IPS update (data date August 1, 2012) shows that CH054A has 100 CDs of schedule float.

**Railroad Force Account:** As of July 31, 2012, the total amount invoiced for **FHA01 – Harold Stage I Amtrak Force Account** was \$15,073,000, which represents 89.6% of the Current Agreement Value of \$16,824,000. There has been one amendment to the agreement for \$1,500,000. Actual work performed is 79.2% versus 77.9% planned. Amtrak ET forces completed installation of a Fleury section break at catenary pole B-940W, the installation of bonding and catenary hardware between catenary poles B906-1/4 and B-920EA, assisted the CH053 contractor to install new catenary poles at locations B-919ELA, B-910E, B-911CW, B-914E, B-915EEA, B-915EWA, B-916EB, B-918E, and utility poles QB-3, and QB-4, and removed existing cross spans at catenary poles B-946C and B-947C; and continued other catenary modifications on the westbound tracks between 39<sup>th</sup> and 43<sup>rd</sup> streets..



As of July 31, 2012, the total amount invoiced for **FHA02 – Harold Stage 2 Amtrak Force Account** was \$18,656,000, which represents 85.2% of the Current Agreement Value of \$21,891,000. There have been no agreement amendments to date. Actual work performed is 42.5% ahead of the 42.4% planned. Amtrak Track and C&S forces installed insulated joints, impedance bonds, and junction boxes in Lines 1 and 3 and Loops 1 and 2 for the future installation of the “F2” CIH, and installed foundation legs for the “F2J” signal hut; continued circuit revisions, point checking, and testing between the existing “F” CIH and the new signal cases, and continued installation and termination of new cables for the “F2” CIH cutover.

As of July 31, 2012, the total amount invoiced for **FHL01 – Harold Stage 1 LIRR Force Account** was \$17,204,000, which represents 82.8% of the Current Agreement Value of \$21,782,000. There have been no agreement amendments to date. Actual work performed is 72.4% ahead of the 75.4% planned. LIRR personnel continued to support Amtrak’s ET catenary wire transfers between 39<sup>th</sup> and 43<sup>rd</sup> streets and preparation for signal tower relocation between existing tower #s 34 and 49; and began signal wire installation across the main lines in Harold Interlocking between new Signal Tower #s 47 and 49.

As of July 31, 2012, the total amount invoiced for **FHL02 – Harold Stage 2 LIRR Force Account** was \$16,106,000, which represents 69.6% of the Current Agreement Value of \$23,128,000. There have been no agreement amendments to date. Actual work performed is 18.9% versus 19.4% planned. LIRR forces completed installation of temporary wood poles and power supply cables for the “F2E” signal hut and the “F2” CIH, installed foundations for temporary dwarf signals at Signal Bridge 16, installed signal trough for the “H3” and “H2” CIHs north of Port Washington Track #1, and graded an area adjacent to the Westward Passenger Track (WWP) for a track panel lay-down location for the November 2012 reconstruction of the WWP; continued installation of signal conduits at Skillman Avenue (“F” Interlocking) and Harold Interlocking and communications cable installation between Point and Harold Interlockings.

#### **d. Quality Assurance and Quality Control (QA/QC)**

During the Quarterly Quality Oversight (QOO) audits conducted in the second quarter of 2012, the PMOC observed an inconsistency in the way the audits were conducted. During some audits, the status of action items from the previous oversight is included in the agenda while on others, this is not addressed. The PMOC recommended that the status of action items from the previous oversight always be included in the agenda for the current oversight.

## **2.0 SCHEDULE DATA**

The IPS#38, data date August 1, 2012 and its variance reports were submitted by ESA on August 31, 2012.

**Project Critical Path:** The critical path continues to go through Manhattan CM009/019 Contract Excavation of the GCT Caverns East Bound (Substantial Completion) followed by Manhattan Structures 2 & Facilities Fit out (CM012R). The latest CM009/019 Contractor’s update schedule forecasts to achieve its substantial completion (5/17/2013) about 2 weeks ahead of its latest target date of 6/1/2013 (note: ESA IPS has SC in August 2013). After CM009/019 completion/turnover, the ESA PMT forecasts that the critical path will go through the north of Main Cavern, GCT 4 wye West Bound, GCT 4 X-over, and GCT 3 east bound wye, Manhattan Tunnels driving the CM012 Substantial Completion (Milestone #7, 6/3/2016 according to the

current CM012 supplement conditions) and will be followed by the Systems Contract (CS179) to construct the last facility rooms in GCT4 and GCT5.

**Schedule Contingency:** The current project baseline schedule for ESA has 359 days of contingency added at the end of the project, extending the RSD from August 2018 to August 2019.

### 3.0 COST DATA

**Funding:** MTACC stated in its 2Q12 Report that an additional \$200 million is required in the MTA 2010 – 2014 Capital Program to fund scheduled commitments, and an additional \$717 million will need to be identified in the MTA 2015 – 2019 Capital Plan to cover the new project baseline budget. MTACC plans to obtain the \$200 million in the current Capital Plan through efficiencies in other MTACC projects and MTA’s inter-agency program.

**Budget/Cost:** MTACC reported that, as of July 31, 2012, the overall project completion was 49.2%, Vs.49.4% planned based on the invoiced amount of \$4,054.5 billion in the MTA-Approved Budget of \$8.245 billion (excluding \$463 million for rolling stock reserve and finance cost). The current Budget and Cost data is shown in Table 1 in Appendix B of this report. Table 3 in Appendix B of this report shows a comparison of the MTA’s Current Working Budget (CWB) vs. the FFGA Baseline Budget in Standard Cost Categories (SCC).

**Contingency:** As of the end of July 2012, the project contingency was reported as \$540,566,540, of which \$150 million is a management reserve.

**Change Orders/Budget Adjustments:** The table below shows the executed mods and budget adjustments that occurred in July 2012:

<i>Contract</i>	<i>\$</i>
<i>Harold Structures Part I –CH053 Demo of LIRR Bridge #11</i>	<i>(42,379)</i>
<i>Harold Structures Part 2A –CH054A</i>	<i>(158,336)</i>
<b><i>Total Executed Modifications</i></b>	<b><i>(200,715)</i></b>
<i>Reconcile CM013 Budget Two Mods were inadvertently omitted (#21 &amp;22) for ground floor slab requiring an adjustment</i>	<i>1,253</i>
<i>CQ031 Budget Correction Required an adjustment to account for Regional Investment</i>	<i>1,358,676</i>
<i>CQ031 Temporary Budget Increase Pending Credit To ensure available funding for current mods</i>	<i>10,641,323</i>
<b><i>Total Other Adjustments</i></b>	<b><i>12,001,253</i></b>
<b><i>Total Contingency Drawdown –</i></b>	<b><i>11,800,538</i></b>

The ESA has introduced a budget line item named “allocated for mods” in its re-baseline budget of 2012 to adjust active packages budget for accepted change orders. In other word the EAC for each package has become the summation of package’s award amount, allocated for mods

amount, and post bid contingency. This budget pool, however, has not been defined in the Cost Management Plan; therefore, the PMOC considers it as post bid contingency. The ESA PMT funded the executed mods for CH053 and CH054A contracts from the "allocated for mods" pool; therefore the amounts shown as executed mods for these items are negative and are not considered as a drawdown from post-bid contingency.

Additionally, the PMT transferred \$10,000,000 from its construction contingency and \$641,323 from its post-bid contingency pool to increase the EAC for Contract CQ031 as illustrated in the above Table.

#### 4.0 RISK MANAGEMENT

**Background Summary:** During Q2-2012, MTACC completed a comprehensive risk assessment of the ESA project. In May 2012, the MTACC's independent risk assessment consultant completed its initial analysis and issued the draft report on May 15, 2012. [REDACTED]

[REDACTED] 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. [REDACTED]

**Current Risk Mitigation Efforts:** Through August 2012, ESA-PMT continued its efforts to identify and mitigate specific risks that may adversely affect the program's cost and schedule performance. Ongoing and significant new risk mitigation initiatives include the following:

- ESA-PMT worked with LIRR, Amtrak and the ESA-CMs to evaluate the impacts that the Amtrak planned capital improvements for the East River Tunnels (ERT) will have on the track outages needed for the Harold Interlocking work. This effort has continued into 2012. However, earlier in the year, Amtrak experienced delays in their ERT program due to a broken rail situation and this did affect track outage coordination with the ESA project.
- ESA-PMT is advancing the transfer of construction of the tunnel bench walk and 63<sup>rd</sup> Street Tunnel rehabilitation from CS179 to CM012 to improve construction access and to minimize contractor work area conflicts.
- The CCM has been engaged to review construction sequencing and phasing of the CM014B work on the GCT Concourse and propose recommendations for improvements and risk mitigation. Preliminary results of this study are anticipated in September 2012. The PMOC believes that an independent review will provide valuable recommendations to optimize the construction sequencing and phasing.

#### 5.0 ELPEP

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 has discussed them with the FTA Region II Office. The PMOC and the FTA met with MTACC in April 2012 to discuss the status of the consolidated comments. *A working session to resolve comments was held on July 17, 2012 and a follow-up meeting was held on August 1, 2012 to review MTACC's responses to the FTA/PMOC comments. MTACC submitted, in August 2012, its proposed plan for incorporating comments into ESA PMP Revisions 8.1 and 9.0. This plan is currently in review by the PMOC. Also related to TCC compliance is one outstanding issue requiring MTACC action: the need for MTACC to develop and implement the PMP training process.*
- **Schedule Management Plan (SMP):** On November 3, 2011, the FTA confirmed that MTACC has responded to the Candidate Revisions identified in FTA's conditional approval letter, dated October 26, 2010, and that the SMP is fully approved.
- **Cost Management Plan (CMP):** FTA conditional approval of the Cost Management Plan, including five (5) Candidate Revisions was received on September 1, 2011. MTACC has submitted its final revisions to the CMP, which incorporate its responses to those Candidate Revisions.
- **Risk Mitigation Capacity Plan (RMCP):** FTA-RII provided its conditional acceptance of the RMCP in its May 24, 2012 letter to MTACC.
- **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 compliance with the ELPEP requirements.
- **Risk Management Plan (RMP):** A draft of the ESA Project Risk Management Plan was transmitted to FTA Region II during October 2011. FTA/PMOC review comments on the ESA RMP were sent to MTACC on April 12, 2012. The PMOC met with MTACC on April 17, 2012 and June 6, 2012 to finalize comments and discuss resolution. *MTACC submitted final Rev. 2 to FTA-RII in August 2012 and it is currently in review by the PMOC.*

*The next ELPEP Quarterly Review Meeting is scheduled for September 12, 2012.*

## **6.0 SAFETY AND SECURITY**

*Project safety statistics for lost time accidents continue to trend above the Bureau of Labor Statistics (BLS) national average at 2.58 vs. 2.20 lost time accidents per 200,000 hours.*

Although there has been some improvement in the safety statistics for the CM009 Contract, the lost time accidents hours continue to trend above the ESA Program average (3.00 vs. 2.58 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 (5.39 vs. 2.58 lost time accidents per 200,000 hours). MTACC made a presentation to FTA on April 26, 2012, discussing its Safety Program Plan and measures being taken (root cause analyses, lessons learned, etc.) to improve safety performance. The PMOC recommends that MTACC makes a follow-up presentation, specifically addressing findings and actions being taken to improve safety performance on contracts that are lagging behind overall Program performance.

*No significant security issues were reported by ESA during August 2012.*

## **7.0 ISSUES AND RECOMMENDATIONS**

**Harold Electrical/Catenary Design:** *Progress was made in getting design approval from Amtrak during Q1 2012; however, as of July 31, 2012, there remain several packages that continue trending behind schedule. The PMOC recommends that MTACC Management continue to focus on the resolution of future catenary design package approvals through better communication and coordination among the GEC, the 3<sup>rd</sup> party design checker, Amtrak and the ESA construction manager. Key milestone dates and status are shown in Table 4 in Appendix B.*

**Contracts CM009/019:** *Based on observations during its most recent site visits, the PMOC continues to note the significant progress that the contractor has made since 4Q2011, and believes that the contractor and the MTACC have the capacity and capability to achieve Substantial Completion by August 31, 2013. The PMOC therefore recommends that the two parties continue to progress the project in the same manner as they have since late 2011 in order to help ensure that the present SC date is attained.*

**Contract CM013:** *The PMOC continues to be concerned that there is a considerable amount of work to be done to meet the Milestone #5 December 2012 completion date. The concrete placement in the basement and shaft has proceeded far slower than planned. The PMOC will continue to review the progress of the completion of the concrete wall placement, which is key to achieving Milestone #5.*

**CM004:** *The PMOC is concerned that a combination of factors, including a new steel fabricator, the submittals, review, approval, and fabrication process, may impact the revised substantial completion date of January 2013. In previous reports, the PMOC has expressed concerns with the length of time taken to process changes in the work. The PMOC will continue to monitor the change order execution process as it relates to the progress of the work towards substantial completion.*

**Contract CQ031:** *The PMOC remains concerned about the costs of the additional CQ031 work required to mitigate the potential delays caused by late completion of key work by the CH053 contractor. The PMOC recommends that the ESA-CMs closely monitor the schedule performance of both the CQ031 and CH053 contractors to ensure adherence to current work schedules, thus minimizing additional costs exposure.*

**Contract CQ039:** *On Contract CQ039, there remains a risk that the Contractor will experience additional delays caused by unforeseen field conditions and difficulties with certain construction means and methods used for tunneling beneath the NYCT subway and Northern Boulevard. Some of the delays have already emerged and include encountering bedrock at an elevation lower than anticipated and requiring significant additional time, three months, to achieve adequate ground freeze prior to the start of tunnel excavation. Overall, the Segmental Excavation Method (SEM) tunneling has progressed more slowly than planned. The PMOC notes, however, that the July 2012 progress was very good and exceeded the planned progress.*

**Contracts CH053/54A:** *During March 2011, a new concern materialized about the relationship between Amtrak and the CH053 contractor regarding division of construction work scope. At that time there was an arbitration board ruling in favor of Amtrak unions' claim to catenary pole and signal tower work that is a significant part of the CH053 base contract scope of work. The*

*PMOC believes that the management and labor personnel changes that Amtrak made in Q1-2012 have significantly mitigated the labor clearance issue. The possibility of labor actions as a result of project activities, however, has not been eliminated. Therefore, the PMOC recommends that MTACC continue to work toward resolution of this issue.*

*Although Contract CH054A is not currently on the project critical path, the PMOC is concerned that construction progress continues to be slow, and late completion will put continuing additional demands on both Amtrak and LIRR force account support services.*

**Railroad Force Account:** The PMOC is concerned that the continual postponement of important Force Account construction activities (e.g. the Westward Passenger Track Reconstruction; which was postponed from Memorial Day weekend of 2011 until November 2012) will eventually negatively impact the way in which the PMT manages the project, which could have a serious effect on the overall project schedule. The PMOC recommends that the PMT evaluate the entire Force Account construction program, work with the railroads to determine a schedule they can all commit to, and develop the management approach to ensure adherence to the schedule.

**Procurement:** In the PMOC's opinion, MTACC has not effectively managed the procurement process. The continued procurement delays consume valuable schedule time before contract award and deprive individual contract packages of schedule float needed during construction. *CS179 and CM012 are high-dollar-value contracts and have long durations, and target dates for these procurements continue to slip (see discussion above).* Although the PMT initially adjusted the procurement dates in the May 2012 revised baseline schedule, the *continuing* slippage will most likely impact the revised project baseline schedule. This situation will affect the IPS critical path and require use of schedule contingency.

**Project Funding/Budget:** The PMOC *remains* concerned that MTACC stated at the May 2012 CPOC meeting that it is assuming that efficiencies in MTACC projects and the inter-agency Program will fund an additional \$200 million commitment needed in the current 2011-2014 Capital Program Plan. The PMOC believes that there is a reasonable possibility that this level of forecast efficiency savings will not be realized, resulting in a budget shortfall.

**Project Schedule:** *Although the current IPS has 359 days of total project contingency, the PMOC is concerned that it may start to be used up fairly soon. The work at Harold is complex and currently many of the Harold contract schedules are close to the critical path. Consequently, any delays may require us of project contingency early on. In the case of procurement delays for the CS179 and CM012 Contract Packages, continuing delays may necessitate the use of project contingency, since these contracts are on the critical path.*

## **APPENDIX A – ACRONYMS**

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ARRA	American Recovery and Reinvestment Act
BA	Budget Adjustment
BAFO	Best and Final Offer
CCC	Change Control Committee
CCM	Consultant Construction Manager
CD	Calendar Days
CM	ESA Construction Manager assigned to each contract
CMP	Cost Management Plan
CIL	Central Instrument Location
CPOC	Capital Program Oversight Committee
CPRB	Capital Program Review Board
CPP	Contract Packaging Plan
CWB	Current Working Budget
CWP	Construction Work Plan
EAC	Estimate at Completion
ELPEP	Enterprise Level Project Execution Plan
ERT	East River Tunnel
ESA	East Side Access
ET	Electric Traction
FA	Force Account
FFGA	Full Funding Grant Agreement
FTA	Federal Transit Administration
GCT	Grand Central Terminal
GEC	General Engineering Consultant
IPS	Integrated Project Schedule
LIRR	Long Island Rail Road
MNR	Metro-North Railroad
MTA	Metropolitan Transportation Authority
MTACC	Metropolitan Transportation Authority – Capital Construction
NATM	New Austrian Tunneling Method
NTP	Notice to Proceed

NYCT	New York City Transit
NYSPTSB	New York State Public Transportation Safety Board
OSHA	Occupational Safety and Health Administration
PE	Preliminary Engineering
PMOC	Project Management Oversight Contractor (Urban Engineers)
PMP	Project Management Plan
PMT	ESA's Project Management Team
QA	Quality Assurance
RAMP	Real Estate Acquisition Management Plan
RFP	Request for Proposal
RMP	Risk Management Plan
RMCP	Risk Mitigation Capacity Plan
ROD	Revenue Operations Date
RSD	Revenue Service Date
SC	Substantial Completion
SCADA	Systems Control and Data Acquisition
SCC	Standard Cost Category
SEM	Sequential Excavation Method
SMP	Schedule Management Plan
SSMP	Safety and Security Management Plan
SSPP	System Safety Program Plan
SWP	Safety Work Plan
TBM	Tunnel Boring Machine
TCC	Technical Capacity and Capability
VE	Value Engineering
WBBY	Westbound Bypass
WBS	Work Breakdown Structure



**APPENDIX B – TABLES**

**Table 1 – Project Budget/Cost Table\*** 

	FFGA (as of December 18, 2006)			MTA’s Current Working Budget (CWB)		Expenditures as of July 31, 2012	
	(\$ Millions)	(% of Grand Total Cost)	Obligated (Millions)	(\$ Millions)	(% of Grand Total Cost)	(\$ Millions)	(% of CWB)
<b>Total Cost</b>	<b>\$7,386</b>	<b>100</b>		<b>\$9,824.5</b>	<b>100</b>	\$3,857.6	39.3
Financing Cost	\$1,036	14.0		\$1,116.5	11.4		
Total Project Cost	\$6,350	86.0	\$4,107	\$8,708**	89.4	\$3,857.6	44.2
<b>Federal Share</b>	<b>\$2,683</b>	<b>36.3</b>	<b>\$1,148</b>	<b>\$2,699</b>	<b>31.0</b>	<b>\$1,723.8</b>	<b>19.8</b>
5309 New Starts share	\$2,632	35.6	\$1,098	\$2,436.6	25.0	\$1,478.0	17.0
Non New Starts grants	\$51	0.7	\$50	\$67	0.7	\$50.4	0.6
ARRA	0	0	0	\$195.4	2.0	195.4	2.2
<b>Local Share</b>	<b>\$3,667</b>	<b>49.6</b>	<b>\$2,959</b>	<b>\$6,009</b>	<b>69.0</b>	<b>\$2,133.8</b>	<b>24.5</b>

\* This total amount does not include Regional Investment amount of \$590,732,003.

\*\*CWB represents MTA Board approved revised re-baseline budget (May 2012) that includes \$463 million for Rolling Stock Reserve.

**Table 2 – 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 –Based on PMOC 2012 risk assessment results.

**Table 3: Comparison of Standard Cost Categories: FFGA vs. CWB**

<b>Standard Cost Category (SCC) No.</b>	<b>Description</b>	<b>FFGA baseline (\$)</b>	<b>MTA's July 2012 Reporting Period CWB (\$)</b>	<b>% Change from FFGA to July 31, 2012 CWB</b>
10	Guideway & Track Elements (route miles)	1,988,741,167	2,943,134,639	147.99%
20	Stations, Stops, Terminals, Intermodal (number)	1,168,655,079	1,514,027,405	129.55%
30	Support Facilities: Yards, Shops, Admin. Buildings	356,264,228	388,053,607	108.92%
40	Sitework & Special Conditions	205,104,572	487,858,151	237.86%
50	Systems	619,343,096	698,309,342	112.75%
60	Row, Land, Existing Improvements	165,280,342	203,639,301	123.21%
70	Vehicles (Number)	493,982,304	674,371,631*	136.52%
80	Professional Services (Applies To Cats. 10-50)	1,183,999,942	1,648,605,925	139.24%
90	Unallocated Contingency	168,529,271	150,000,000	89.01%
<b>Subtotal</b>		<b>6,349,900,000</b>	<b>8,708,000,000</b>	137.14%
100	Finance Charges	1,036,103,583	1,116,453,993	107.76%
<b>Total Project Cost (10 – 100)</b>		<b>7,386,003,583</b>	<b>9,824,453,993**</b>	133.01%

\* Includes Rolling Stock Reserve of \$463,000,000.

\*\* This total amount does not include Regional Investment amount of \$590,732,003.

**Table 4 – August 2012  
ESA: Catenary Review Schedule**

Catenary Package	30% Submittal HNTB/Amtrak Review		60% Submittal HNTB/Amtrak Review		90% Submittal HNTB/Amtrak Review		100% Submittal HNTB/Amtrak Review	
	Submit	Return	Submit	Return	Submit	Return	Submit	Return
STAGE 1							8/8/11	8/26/11 10/06/11 (A)
STAGE 2			9/7/11 11/16/11 (A)	9/21/11 2/29/12 (A)	10/28/11 3/9/12 (A)	12/1/11 4/18/12 4/27/12 (A)	1/6/12 4/27/12 5/10/12 (A)	2/6/12 6/01/12 5/30/12 (A)
STAGE 3	10/14/11 12/14/11 (A)	11/18/11 2/29/12 (A)	12/23/11 4/18/12 4/27/12 (A)	1/30/12 5/24/12 8/13/12 (A)	3/9/12 6/20/12 8/17/12 (A)	4/15/12 7/30/12	5/18/12 8/17/12	6/18/12 9/18/12
FQA65	9/29/11 12/14/11 (A)	10/21/11 2/29/12 (A)	11/25/11 4/3/12 4/13/12 (A)	1/06/12 5/10/12 7/13/12 (A)	2/10/12 6/11/12 8/01/12 (A)	3/20/12 7/18/12	4/20/12 8/3/12	5/26/12 9/4/12

A = Actual

Note: yellow highlights denote missed target dates.

