

PMOC MONTHLY REPORT

East Side Access (MTACC-ESA) Project

Metropolitan Transportation Authority

New York, New York

Report Period February 1- February 28, 2015

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PMOC Contract No. DTFT60-09-D-00007

Task Order No. 7, Project No. DC-27-5235, Work Order No. 2

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

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THIRD PARTY DISCLAIMER

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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. 007. 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 the end of January 2015, MTACC reported that the overall Engineering effort was 98.8% complete, based on Earned Value for Design Deliverables, compared with a Planned status of 100%. Their Cost Report shows 88.7% of the overall EIS & Engineering category as invoiced and 88.7% of the budgeted section titled "Design" (including Design Settlement) as having been invoiced.

MTACC continued to investigate the potential scope transfer of the Manhattan Cavern south back of house via a change order from the CM007 package to the CM005 Contract, but negotiations failed to produce an agreed upon price for the work. As a result, the scope remains in CM007, and the design documents for this work went out in the RFP package that was advertised in December 2014.

A Preliminary Change Order (PCO) request was issued to the GEC to develop a new, stand-alone package CH061A (completion of Queens Tunnels "A" and "D"). The GEC continues to await authorization from MTACC to proceed with producing the package.

A technical meeting with the owners of 415 Madison Avenue was held on January 29, 2015. In that meeting, the owners decided that they will only relocate the existing utilities within their building. That includes water service, sewer, steam, mechanical duct work, electrical lines and the telephone service. The owner's structural engineers provided the structural loads, suggested column reinforcing, and suggested reinforced slab design to ESA. MTACC is currently preparing the design agreement (MOU) with the owner, which will enable the design to begin. Once that MOU is signed, the scope of work to repackage CM015 and CM015A will be developed.

Anticipated advertise date for the CH057 package was previously forecast for July 2014 with NTP forecast for September 2014. The forecast advertise date was not met. Signed and Sealed bid documents were issued by the GEC on February 27, 2015. The package is now structured to include 15 options. The Bid Advertisement is now anticipated in mid-March 2015. The track bid options will be issued in an addendum in late-March. The PMT is in the process of obtaining LIRR concurrence. Amtrak design concurrence is also in progress.

CH058 is being repackaged and the bid advertisement date has not been determined. The East Bound Re-route tunnel construction method is being revised from a top down to a traditional cut and cover method and ESA is considering splitting the package into two separate Contracts: CH058A will contain the East Bound Re-route; CH058B will contain the loop box. A white paper is being developed to present to the Change Control Committee (CCC), which must approve the proposed repackaging plan.

A Preliminary Change Order (PCO) request was issued to the GEC to develop a new, stand-alone package CH061A (completion of Queens Tunnels "A" and "D"). The GEC continues to await authorization from MTACC to proceed with producing the package.

The west end of the mid-day storage yard (CQ033) needs resolution as to what work is to be performed by Amtrak (track and signals) to tie into the ERT (East River Tunnels) and what work will be performed by LIRR (track) to tie into the Arch Street shop. ESA is now looking at structuring the CQ033 package with five options and is also looking at splitting out the procurement of the Central Instrument Locations (CILs) into a separate package. This packaging change was presented to the CCC in February 2015 and approved.

ESA continues to experience slippage in design completion and advertise dates across a number of packages.

b. Procurement

As of the end of January 2015, the Cost Report showed total procurement activity on the project as 65.0% complete, with \$6.617 billion in contracts awarded out of the \$10.178 billion current reported budget.

For CM014B, the PMT submitted a recommendation to the MTA Board for award of the contract in January 2015. Award and NTP were issued February 2, 2015. Initial submittals, permits, baseline schedule development, and contractor mobilization are under way and will continue until on site work begins in April/May 2015. The Contract award included four options: elevators; the Biltmore Room; 48th Street entrance; and the north transfer station.

The CM007 package was advertised on December 23, 2014. Contract documents were made available for proposers on January 13, 2015. Initial proposals are due May 1, 2015. To date,

there are 30 plan holders, and MTACC received 88 questions from proposers. Addendum No. 1, which added a reference document and changed the date of the site tour, was issued on February 26, 2015.

The PMT remains undecided as to how to procure the signal installation work currently in a stand-alone package CS086. The PMOC recommends that this decision be made quickly, since the signal installation work must be coordinated with the track work to be performed in CM007.

c. Construction

The PMT reported in its January 2015, Monthly Progress Report that the total construction progress reached 54.7% complete vs. 55.0% planned; the PMOC calculations based on data in the ESA Cost Report agree with the ESA completed percentage. Details for active construction contracts are provided below. .

CM004 – 44th Street Building Demolition and Fan Plant Structure; 245 Park Avenue

Entrance: As previously reported by the PMOC, MTACC has issued a retroactive Substantial Completion letter for September 9, 2014. As of their October – December Quarterly Report, MTACC is no longer reporting on the CM004 contract. Accordingly, as of the date of this report, the PMOC will no longer report on updates for CM004.

CM005- Manhattan South Structures: The Estimate at Completion for CM005 increased slightly to \$239,124,369 during January 2015 due to a re-forecast of contract modification values. The MTACC forecast for Substantial Completion remained at February 6, 2016. Actual construction progress for January 2015 was 6.0% versus 3.2% planned. Cumulative progress through January 31, 2015 was 64.9% actual versus 66.4% planned.

Construction Progress: During February 2015, the CM005 contractor completed concrete pours for exterior intermediate walls and the south end upper level slab in the GCT 1&2 East Wye Cavern, exterior walls in the GCT 1&2 West Wye Cavern, intermediate level interior walls at the 38th St. Vent Facility, and inverts in Access Tunnels 1 and 2 adjacent to the Westbound Cavern. The contractor also continued to place re-bar for lower level exterior walls in the Eastbound Cavern and shotcrete in the Air Wye and Raised Bore caverns.

Vent Plant: The CM005 Contractor continues to maintain the MPT on E. 44th St. and controls security and all program related access to the site. Going forward, at a date to be determined, the 44th St. Vent Plant building will be turned over to the CM014B contractor to complete fit-out and all remaining work.

CM006 – Manhattan North Structures: The Estimate at Completion for CM006 decreased slightly to \$318,495,750 during January 2015 due to MTACC re-forecast of existing contract modification values. The MTACC forecast for Substantial Completion remained at November 30, 2016. Actual construction progress for January 2015 was 2.2% versus 3.5% planned. Cumulative progress through January 31, 2015 was 14.8% actual versus 25.3% planned. The PMOC notes that this contractor is lagging behind and submitted a recovery schedule, accepted by MTACC, but underperformed during January and February 2015.

Construction Progress: During February 2015, the Contractor began to place pneumatically applied concrete (PAC) and construct the center wall in the GCT 4 West Wye Cavern, form and pour intermediate level interior walls over the westbound tunnel at the 55th St. Vent Facility,

continued to install archway re-bar in the GCT 5 West Wye Cavern, and continued to pour invert concrete in the westbound tunnel and the Cross Flue area.

CM013A – 55th Street Vent Facility: MTACC reports that through January 2015 the EAC reduced slightly to \$57.11 million from the previous \$57.29 million. Work progress has slowed slightly during construction of the Plenum Roof and final lining of the Shaft. Accordingly, forecast Substantial Completion has been extended to May 28, 2015 from the previous May 4, 2015. Cumulative progress was 77.0% actual vs. 82.3% planned.

Construction Progress:

Plenum: Concrete placement of the Plenum Roof continues. Installation of sewer manholes and connection sewer pipe continues at street level above the Plenum Roof in the East Plenum. Electrical conduit work is ongoing in the West Plenum.

Cavern: The Cavern Structure is complete. Personnel access to the work areas utilizes a crane operated personnel cage. Painting of the Cavern Arch and Cavern Rooms continues. Installation of hoist beams in designated rooms is underway.

Shaft: Lining of the shaft walls continued with installation of rebar cages from elevation 256 to elevation 320 at the top of the shaft. Pneumatically Applied Concrete (PAC) placement will follow.

CM014A – Concourse and Facilities Fit-Out: MTACC reports that through December 31, 2014, the EAC decreased slightly to \$56.70M from the previous \$57.18M. MTACC Forecast Substantial Completion date remains extended to July 2, 2015. This extension reflects the MTACC forecast for Con Ed work to energize the system and the following commissioning. To help facilitate achieving Substantial Completion as soon as possible, some remaining base contract work has been transferred to the new CM014B contract. As of January 31, 2015, MTACC reported that the actual percent complete was 89.2% vs. 100% planned.

Construction Progress: The SCADA panels have been delivered to the site and are being installed. Surveying and layout is ongoing. CMU erection is near completion. Installation of fire stopping continues and painting is ongoing. Inspection of the welds on the hydronic piping in Shaft #2 has been completed with no issues. Ductwork and piping installation continues in Zones #1 & #2. Sprinkler and fire standpipe installation nears completion in Zones #4 & #5. Branch feeder and conduit installation is ongoing throughout. Installation of the 600V cable continues. Resinous flooring is being completed. Installation of the Roll-Up Doors is beginning. Sealing of concrete floors will resume March 3, 2015.

CM014B – Concourse and Facilities Fit-Out: The Notice of Award/Notice to Proceed was issued February 2, 2015. This contract is for \$404,622,096. The contract contains four Owner Options, which, when exercised, would adjust the Contract Price to \$428,900,000.

The Project Kick-Off Meeting was held on February 10, 2015. The Schedule Kick-Off Meeting was held on February 12, 2015, and the Building Information Modeling Kick-Off Meeting was held on February 13, 2015. The first Contract Progress Meeting is scheduled for March 3, 2015.

CS179 – Systems Package 1:

MTACC awarded this Contract in March 2014. As of December 2014, the Estimate at Completion for CS179 is \$551,899,740. The MTACC forecast for Substantial Completion is November 25, 2019.

Construction Progress: The Contractor re-submitted its baseline schedule on December 31, 2014, with the baseline narrative following on January 16, 2015. Multiple schedule workshops were held with Contractor's new scheduler. The PMT reviewed the schedule submittals and concluded that, based on the contractor's resubmittal of the baseline on February 18, 2015, the schedule coding structure is flawed, making it difficult to analyze discrete work activities. ESA is engaging the Contractor's management team to resolve the continuing schedule issues. The Contractor is also coordinating the tunnel electrical system work with the CM006 Contractor.

CS084 – Traction Power Substations:

MTACC awarded this contract in October 2014. As of December 2014, the Estimate at Completion for CS084 is \$78,373,788. The MTACC forecast for Substantial Completion is December 3, 2019.

Construction Progress: Contract is in early mobilization stage. As of the end of January 2015, ESA reported that the contractor has not submitted project schedule documents.

Queens Contracts:

CQ032 – Plaza Substation and Queens Structures: The Estimate at Completion for CQ032 decreased slightly to \$246,526,199 during January 2015 due to MTACC re-forecast of existing contract modification values. The MTACC forecast for Substantial Completion was extended by 3 weeks to March 8, 2016. Actual construction progress for January 2015 was 2.1% versus 3.3% planned. Cumulative progress through January 31, 2015, was 79.2% actual versus 82.9% planned.

Construction Progress: During February 2015, the contractor continued to excavate the foundation, install piles, and began construction of structural starter walls for the Yard Service Building (YSB), continued limited re-bar installation for the Air Intake/Exhaust Facility adjacent to the YSB, continued to install communications and signal conduits in Tunnels B/C and D, and continued to form and pour concrete bench walls in the 63rd St. Tunnel. All outdoor construction was extremely limited during February 2015 due to adverse weather.

Harold Interlocking:

CH053 Contract – Harold Structures Part 1 and G.0.2 Substation: The Estimate at Completion for CH053 was reduced to \$294,329,250 during January 2015 due to MTACC re-forecast of existing contract modification values and a scope transfer out of the contract. The MTACC forecast for Substantial Completion was extended 3 weeks to June 6, 2015. Actual construction progress for January 2015 was 0.6% versus 0.0% planned (contract was supposed to be complete by now). Cumulative progress through January 31, 2015, was 93.7% actual versus 100.0% planned.

Construction Progress: During February 2015, the contractor continued work to place the S1 and S2 12kV cables between Sub 44 and Sunnyside Yard Frequency Converter in service and continued to install conduit and install and splice cables in Runs 1-4 into the new G02

Substation. All outdoor construction was extremely limited during February 2015 due to adverse weather.

CH054A – Harold Structures Part 2A: The Estimate at Completion for CH054A increased slightly to \$57,024,016 during January 2015 due to MTACC re-forecast of existing contract modification values. The MTACC forecast for Substantial Completion remained at April 29, 2015. Actual construction progress for January 2015 was 0.7% versus 0.0% planned (contract was supposed to be complete by now). Cumulative progress through January 31, 2015, was 92.2% actual versus 100.0% planned.

Construction Progress: During February 2015, the contractor placed the C3 12kV circuit between the East River Tunnel portals and Sub 44 in service and continued to prepare the C1 and C2 circuits for service, and continued to pull and splice utility, signal, and communications cables through micro-tunnel Run #13 conduits west of Thomson Avenue. All outdoor construction was extremely limited during February 2015 due to adverse weather.

CH057A – Part 3 Westbound Bypass: The Estimate at Completion for CH057A increased to \$114,299,588 during January 2015 due to MTACC re-forecast of existing contract modification values. The MTACC forecast for Substantial Completion was extended by 1 month to September 14, 2016. Actual construction progress for January 2015 was 0.7% versus 5.9% planned. Cumulative progress through January 31, 2015 was 15.0% actual versus 38.5% planned (PMOC calculation).

Construction Progress: During February 2015, the CH057A contractor installed catenary foundations in the “ballfield” area west of Queens Boulevard, continued excavation to erect support for the 12kV duct bank at “H3” CIL, and continued construction of the de-watering system throughout the project site. The contractor did not install any piles in February 2015. All outdoor construction was extremely limited due to adverse weather.

Railroad Force Account:

FHA01 – Harold Stage 1 Amtrak: The Estimate at Completion for FHA01 returned to \$18,418,309 during January 2015. The MTACC forecast for Substantial Completion was extended by 1 month to April 11, 2016. Actual construction progress for January 2015 was 0.0% versus 0.0% planned. Cumulative progress through January 31, 2015 remained at 97.5% actual versus 99.0% planned.

Construction Progress: Amtrak did not perform any significant Stage 1 construction during February 2015.

FHA02 – Harold Stage 2 Amtrak: The Estimate at Completion for FHA02 increased slightly to \$49,384,760 during January 2015. The MTACC forecast for Substantial Completion was extended by 1 month to January 26, 2018. Actual construction progress for January 2015 was 0.4% versus 0.9% planned. Cumulative progress through January 31, 2015 was 92.3% actual versus 93.2% planned.

Construction Progress: During February 2015, the Electric Traction Department continued to make limited Stage 2 catenary and signal wire transfers between Thomson Avenue and Sub 44 and the C&S Department completed the cutover of the circuits into the 6EA and 6EB signal cases so that the cases could be removed. All outdoor construction was extremely limited due to adverse weather during February 2015.

FQA65 – Loop Interlocking Amtrak: The Estimate at Completion for FQA65 increased slightly to \$29,682,534 during January 2015. The MTACC forecast for Substantial Completion was extended by 1 month to December 8, 2019. Actual construction progress for January 2015 was 0.2% versus 3.3% planned. Cumulative progress through January 31, 2015 was 8.1% actual versus 26.2% planned.

Construction Progress: During February 2015, C&S personnel continued to install a limited amount of signal trough and retaining wall along Loop 2 Track in future “T” Interlocking although construction was hampered by adverse weather.

FHL01 – Harold Stage 1 LIRR: The Estimate at Completion for FHL01 increased to \$24,103,129 during January 2015. The MTACC forecast for Substantial Completion remained at September 18, 2015. Actual construction progress for January 2015 was 0.0% versus 0.8% planned. Cumulative progress through January 31, 2015 was 99.3% actual versus 97.6% planned.

Construction Progress: The LIRR did not perform any significant Stage 1 construction during February 2015.

FHL02 – Harold Stage 2 LIRR: The Estimate at Completion for FHL02 was increased to \$83,987,193 during January 2015. The MTACC forecast for Substantial Completion was shortened by 1 month to December 6, 2017. Actual construction progress during January 2015 was 0.8% versus 3.2% planned. Cumulative progress through January 2015 was 64.2% actual versus 73.8% planned.

Construction Progress: During February 2015, LIRR C&S personnel continued to test circuits and make signal revisions at the “H4” CIL, install conduit and snow melter circuits at the “H3”, “H5”, and “H6” CILs, and make signal revisions at the old Harold CIL. LIRR High Tension personnel began to pull cables at the HP2 location. All outdoor construction was extremely limited during February 2015 due to adverse weather.

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

GEC Quality: The GEC Quality Manager has resigned effective in March 2015. The ESA GEC Program Manager is currently seeking a permanent replacement. Although the GEC Quality Manager is not a full-time position, the PMOC nonetheless considers the role important to assure that the work of the GEC meets the established project quality requirements. The PMOC therefore recommends that the candidate Quality Manager be identified and submitted to ESA-PMT for approval at the earliest possible time to provide continuity of quality oversight for the GEC’s design work and construction phase services. The PMOC has requested that the GEC Manager provide a plan demonstrating that staffing is adequate to provide the necessary quality oversight.

CM013A: On January 15, 2015, a 16 inch long crack was discovered at the top of the West Plenum North Branch column. A nonconformance report was generated. The crack was a maximum of 0.75 inch deep and did not expose the rebar. An approved standard repair procedure has been proposed to chip out the defective area to sound concrete and install a patch with a specified material. The GEC is still reviewing information and has not yet given permission to repair the column. This column is not exposed to the public and will not receive an architectural finish. The GEC has determined that there are no structural issues.

As-Built Process Audits: The ESA Quality Manager reviewed the As-Built Drawing Process on contracts CH057A and CM006 in January 2015. CH057A was acceptable but CM006 is behind schedule. A follow-up review of CM006 will be conducted in March 2015. Contracts CH053, CH054A, CQ032, CM004, CM014A, CM005, CM013, and CM013A were audited in 2014. Follow up audits with the CM office and GEC will be performed in March and April 2015 to ascertain/identify any inconsistencies in the submittal process and implementation of any as-built information received by the GEC, including whether the GEC is actually reporting back to the CM.

MTACC Special Inspection Process Audits: MTACC will be performing Process Audits for Special Inspections on all active contracts starting on March 10, 2015 and continuing throughout March.

CS179 (Systems Package 1 – Base Contract): This contract was awarded eleven months ago and almost all submittals are late and/or unacceptable. The Contractor's original Quality Manager left. The replacement left in February 2015 and there is presently no Quality Manager assigned. The contractor is interviewing for a replacement. The ESA CS179 Construction Manager will be meeting with the contractor's executive management in March 2015. The PMOC is concerned that the contractor's Quality System is not functioning. The CS179 contractor has other ESA contracts and their Corporate Quality Manager works on each of these contracts. The PMOC recommended to MTACC and ESA Quality Management that the Corporate Quality Manager spend more time on the CS179 contract.

Procedure Compliance Audits: During 3Q2014, MTACC Quality conducted Procedure Compliance Audits on Contracts CM005, CM013, CM013A, CH057A, and CQ032. The major finding in most of the audits was that the field engineers need to be trained in completing the daily construction reports. The auditors also recommended that columns providing additional information pertaining to RFIs need to be added to the RFI logs. Since there were similar findings and recommendations for other contracts, the ESA Heavy Civil Project Executive prepared a response to the auditors. MTACC Quality agreed with most of the response and is still working with the ESA staff to resolve the remaining issues. Since these issues have been open for many months, the PMOC recommended that MTACC's Chief of Quality and System Certification help to close them.

Quality Training: A Quality Kickoff meeting and Quality Training that was scheduled in February 2015 for the CS179 contractor was postponed when their Quality Manager resigned. It will be rescheduled. A Quality Kickoff Meeting for the new CS084 contractor will be held in March 2015.

Quarterly Quality Oversight (QO) Reports and Issues – QOs are conducted every three months. Reports from the previous QO are not received by some contractors until one to two weeks before the current QO. The ESA Quality Manager and PMOC have had conversations about this and the problem is that ESA Quality sends their reports to the ESA Construction Management Office and some Construction Managers have been holding the reports and not forwarding them to the contractors until one to two weeks before the next QO. To resolve this problem, the ESA Quality Manager will send an "unofficial" copy of the report to the contractor when the official copy is sent to the Construction Management Office. The PMOC agrees with this action and also recommended that issues be identified and discussed at the end of the previous QO and then added to the agenda for the Monthly Quality Management Meeting with

projected closure dates for each issue. This will result in most issues being closed by the next QO and those that are not will have an acceptable reason and an assigned closure date.

2.0 SCHEDULE DATA

ESA submitted its IPS #66 data date February 1, 2014 and its variance report. The variance report states that “The current working IPS reflects an early Revenue Service Date (RSD) of March 25, 2020, a target RSD of February 12, 2021, inclusive of 324 days of IST contingency and a new late RSD of December 13, 2022, inclusive of 324 days of IST contingency and 669 days of program-level contingency.”

As noted in the PMOC’s January 2015 report, ESA’s critical path has changed and it goes through the procurement of Contract CM007 and then to the building the Structure within the GCT Cavens and cavern structures. The path then shifts to CS179 work within the Train Operations Center (TOC) through Integrated Systems Test.



CS179 Contractor has not submitted an acceptable baseline schedule yet which is almost a year since the award of package. The contractor submitted his revised baseline schedule, the third version, on February 18, 2015 and it is currently under review by ESA. Contract material and equipment submissions are being submitted on an ongoing basis.

Active Harold Contracts CH053 and CH054A are both forecasting Substantial Completion by 3rd Quarter of 2015, and CH057A is forecasting Substantial Completion during the 3rd Quarter of 2016. A Change Proposal Request (CPR) for deletion of the remaining Tunnel A Reception Pit and Track A Approach work from CH053 was issued to the Contractor in December 2014 where MTACC will achieve an earlier Substantial Completion that will reduce the Program’s exposure to added impact costs. This work will be transferred to CH057A and CH061A. The 100% design of these two packages has been postponed for three months, however.

The following table shows most important 90 day look-ahead milestones for the project. It should be noted there is negative float of Milestone#2 for contract CQ032.

Table 2-1: Critical Milestones 90 Day Look Ahead

Activity ID	Activity Name	Start	Finish	Total Float	IPS-CONTRACT
CQ032-MS02	Milestone #2 - Complete & Turnover for Beneficial Occupancy of Y1 Trk Envelope		29-May-15	-38	CQ032
CS179-AR24	CS179 AR 6A - Plaza C07 & C06 Level & Track Level & B10 Con Ed MH	01-May-15		0	CS179
FHA01-1120	Complete Catenary Wire - 821 & 823 Switches		22-Mar-15	70	FHA01
FHL01.SI.00175	FHL01 - Cutover 821/ 823 Crossover		22-Mar-15	70	FHL01
FHL02-CSR140	Ready to start testing / Revision (H3)		15-May-15	80	FHL02
FHL02503750	CH053 Hand over E35 Location (Ball Field)		6-May-15	87	FHL02
FHL02.SI.345	Complete Trough (Ball Field Area)		20-May-15	87	FHL02
FHL02.SI.365	Complete Cable Installation for H3-CIL Cutover		20-May-15	87	FHL02
CS084-3210	NTP of TPSS Equipment Vendor Contract	17-Mar-15		93	CS084
CH057A-6570	Complete CPR-18		30-Mar-15	93	CH057A
CH057A-6560	Complete Conduits Under Existing 12KV - Handover to LIRR Signals		30-Mar-15	93	CH057A
CM015-D1050	CM015 Bid Advertise	19-Mar-15		99	CM015
CM015-D1070	Bid Due Date		20-May-15	99	CM015

Project Critical Path:

See previous section.

Schedule Contingency:

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Additionally, ESA has changed base duration of

contract CM014B without any further explanation. The PMOC is reviewing MTACC's proposed contingency drawdown and the matter would be finalized by the end of March 2015.

Change Orders/Budget Adjustments: The PMT reported that over the last month, four (4) Construction change orders over \$100K were executed for a total of approximately \$1.7M.

3.0 COST DATA

Funding: The MTA funding request for the 2015-2019 Capital Program was submitted to the NYS Capital Program Review Board (CPRB) in September 2014. ESA will need to obtain funding from this Program to award all the options in the CS179, CM007, CQ033, and CH058 Contracts. The new \$10.178B (not including the \$463 Rolling Stock Reserve) budget presented to CPOC in June 2014 will make the need for additional funding even greater. The CPOC figure represented an increase of \$484M from the Re-Plan Budget presented in January 2014, and is \$1,932M greater than the 2012 Re-baseline Budget. In addition, the 2012 re-baseline budget included more than \$700M of un-funded scope that was to be addressed in the 2015-2019 MTA Capital Program. Until new funding is provided, the project has a funding shortfall of approximately \$2.6B, and is part of the un-Funded MTA Budget.

Budget/Cost: The ESA January 2015 Progress Report shows the total project progress was 54.9%, which is also the planned percent complete against the Current Baseline Budget (CBB) of \$10,178B, and the construction progress as 54.7% vs. 55.0% planned, based on invoiced amount (details of project budget and expenditures are shown in Tables 2 and 3 in the appendix). The PMOC's review of the Cost Report supports the ESA reported percentage of invoiced work. After the Cost Review meeting in January 2015, ESA and the PMOC agreed on the ESA Cash Flow chart (Table 6 of the Appendix) to be used for tracking ESA performance. Based on the approved CBB, ESA is only slightly behind the Planned Cash Flow rate.

The current \$10.178B budget follows the procedure of assigning a series of separate small contingencies which are not easily distinguishable. This already entails an excess number of budget adjustments to date and in the future, which appears to be operationally complex and often makes it difficult for the PMOC to determine the expected and current status of the Project and packages.

ESA informed the PMOC that it had reassigned values to each of the SCCs as part of their re-plan (Table 6 of the Appendix) but they have not yet demonstrated how the values were determined or that the structural problems in the SCC have been addressed. ESA still does not provide proper SCC assignment of Contingencies. [REDACTED]

[REDACTED] ESA moves this into and out of various non-awarded categories whereby the SCC mix gets continually changed, most specifically as funds are churned into and out of the Assigned for MODs category. The PMOC's opinion is that this needs to be corrected and brought into compliance with the associated provisions in Cost Management Plan.

[REDACTED]

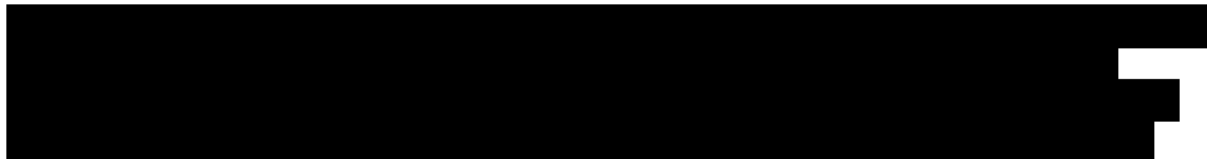


As part of the re-plan, ESA has begun use of an ‘Allowed for MODs category’, which represents funds moved out of Contingency equal to the value of the Pending and Potential MODs. Funds for potential MODs that are not realized are then moved back into Contingency. The PMOC believes that this method of tracking will make it difficult for the ESA Project Control Group to accurately track remaining contingency at any given point in time.

Since the values ESA carries for pending MODs and potential MODs are often very far off of the actual executed values, the cost projections continue to be inadequate. In many other projects where the value of Anticipated MODs/Change Orders is seen solely as an exposure, by continually making these budget moves in and out, the effect of variance from the projected is much greater and more disruptive to the budget process. There has not been any indication from ESA that they are addressing the poor forecasting of costs for MODs with the Contract Construction Managers.



[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]
[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]
[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]
[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]
[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]
[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]
[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]
[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]
[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]
[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]
[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]



Change Orders/Budget Adjustments: The PMT reported that over the last month, four (4) Construction change orders over \$100K were executed for a total of approximately \$1.7M.

4.0 RISK MANAGEMENT

ESA held a risk meeting in January 2015; however one was not scheduled in February 2015, nor was an updated risk register provided.

MTACC intends to perform a package level risk assessment for CM007. As of the end of February 2015, the forecast date for this risk assessment is mid-March 2015. Short-term funding constraints now constitute a significant risk to awarding this package, and ESA noted at the January 2015 monthly risk meeting that this constraint may force a base and option approach to awarding the Contract, similar to what was done with contract CS179. This is complicated by the fact that the package has already been advertised. A meeting to discuss the schedule that will form the basis of a CM007 Contract-level risk assessment was held on February 25, 2015. At this meeting, MTACC-ESA presented the CM007 schedule that will be used for the risk assessment that is scheduled for mid-March 2015.

Continuing issues with the level of Amtrak force account support, currently at about 30-35% of what is required to maintain the current schedule, would be significant and could delay completion of the Harold Interlocking work another three years until 2022 under the worst-case trending scenario. Amtrak watchman availability dropped 50% in February 2015; Amtrak said that this was caused by snow duty needs. Electric Traction (ET) resources continue to be insufficient despite Amtrak's earlier written acknowledgement that the MTACC schedule requires an ET staff of 24.

5.0 ELPEP COMPLIANCE SUMMARY

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

- **Technical Capacity and Capability (TCC):** The FTA requested MTACC to update its TCC Plan in response to the FTA/PMOC comments that were generated in November 2013 as a result of significant changes in key ESA upper management level positions. At the December 11, 2014, ELPEP Quarterly Review Meeting, MTACC reiterated that the TCC Plan revisions are not yet completed pending finalization of the role, responsibilities and level of authority of the ESA Change Control Committee. As of February 28, 2015, the revised TCC Plan has not been submitted.
- **Continuing ELPEP Compliance:** The following ELPEP components continue to need improvement or are deficient: Management Decision; Design Development; Change Control Committee (CCC) Process and Results; Stakeholder Management; Issues Management; Procurement; Timely Decision Making; Risk-Informed Decision Making.
- **Project Management Plan:** MTACC submitted PMP Rev. 10 to the FTA and PMOC on July 18, 2014. This revision incorporates changes stemming from FTA/PMOC comments on PMP Rev (9.0) provided in December 2013, as well as changes that resulted from the MTACC's Candidate Revision process. Based on working meetings, dialogue, and additional clarifying review comments from the PMOC; MTACC made additional changes to the PMP and submitted an updated Rev. 10 on September 18, 2014. The PMOC completed its review and evaluation of MTACC's revisions and responses and submitted its findings to FTA-RII in 4Q2014.

The PMOC notes that since June 2013, the ESA project has continued to be non-compliant with ELPEP, and is not meeting some of the more important requirements of the SMP and CMP sub-plans to the PMP. The PMOC's opinion is that this continues to be a serious deficiency and needs to be resolved immediately. The PMOC's major areas of concern include:

- **Cost/Schedule Contingency:** In November 2014 ESA has submitted its initial cost and schedule contingency utilization curves for the new baseline budget and schedule presented to CPOC in June 2014 in order to comply with ELPEP; however they then stated they would correct them to make the curves usable by ESA Project Controls staff and acceptable to the FTA/PMOC. The PMOC does note, however, that draft proposed cost and schedule contingency drawdown curves were presented by MTACC at the December 11, 2014 ELPEP Quarterly Review Meeting. There is a meeting scheduled in March 2015 to discuss the cost and schedule contingency drawdown curves.
- **Schedule Management Plan (SMP):** The ESA project remains non-compliant with requirements for IPS Updating, Forecasting, and Schedule Contingency Management against a current baseline schedule. Given that the new budget and schedule have been put in place, the PMOC had expected that MTACC would start to meet the requirements set forth in its SMP in the above referenced areas. This has not occurred as MTACC just completed, in December 2014, the latest Harold Re-Plan and has commenced incorporating the Re-Plan results into the Interlocking Project Schedule. As of February 28, 2015, incorporation of the Harold Re-Plan into the IPS has not been completed. MTACC has committed to have this completed for the March 2015 IPS update that has a data date of April 1, 2015.
- **Cost Management Plan (CMP):** The ESA project remains non-compliant with requirements for Project Level EAC Forecasting, Project Level EAC Forecast Validation, and MTACC Cost Contingency Management and Secondary Mitigation. Given that the new budget and schedule were presented to the MTA CPOC in June 2014, these requirements should have been met by now but MTACC has made very little progress in this area. The PMOC notes that the current CMP has been accepted as being in conformance with ELPEP. ESA-PMT has advised that the draft of the updated CMP is expected to be completed in 1Q2015.

Revisions to the ELPEP Document: Although the 2014 Re-Plan budget number and Revenue Service Date were presented to CPOC on June 23, 2014, MTACC has not yet fully incorporated the schedule details into its regular monthly reporting. MTACC had previously committed to providing these details by about August 25, 2014. MTACC has taken the position that the IPS will not be finalized and presented to FTA/PMOC until the current Harold Interlocking re-planning/re-sequencing effort has been completed and to not expect a revision until December 2014. As of February 28, 2015, however, this has not yet been completed. The PMOC notes that this current Harold re-plan will supersede the earlier Harold Re-Plan that began in 4Q2013 and was completed in 1Q2014. Final revisions to the ELPEP Document cannot be completed until the IPS is finalized. The PMOC notes that MTACC completed the Harold Re-Plan December 2014 and has started incorporating the Re-Plan results into the IPS, but that this effort has not yet been completed. MTACC has forecast that the Harold re-plan details will be presented in the March 2015 IPS update having data date of April 1, 2015. The PMOC has started an independent evaluation of the required cost and schedule contingencies going forward as part of the process of updating the ELPEP document.

The next ELPEP Quarterly Review Meeting with MTACC, FTA-RII, SAS and ESA projects and the PMOC has been scheduled for March 12, 2015.

6.0 SAFETY AND SECURITY

Project safety statistics for lost time accidents on active construction contracts continue to trend above the Bureau of Labor Statistics (BLS) national average at 2.14 vs. 1.70 lost time accidents (LTA) per 200,000 hours. This is slightly lower than last reporting period (2.20). The CM005 Contract has an average of 2.79 LTA, trending higher than the project average but decreasing (from 3.06 LTA) since the last reporting period. On February 27, 2015, a CM005 Contract employee who was trowelling shotcrete was struck by a 4'x4'x4" section of recently applied shotcrete which broke loose from the shoulder of the tunnel where he was working. The employee suffered 6 broken ribs and was hospitalized. As a result of the incident, all shotcrete operations on the CM005 and CM006 contracts were temporarily suspended. .

The PMT did not report any significant security issues in its January 2015 Monthly Progress Report.

7.0 ISSUES AND RECOMMENDATIONS

Design: The PMT design management team needs to focus on achieving intermediate milestones in a timely fashion and work closely with the GEC to help make this happen. The continuing shifting of scope has made finalizing design documents and drawings extremely difficult.

The PMOC maintains its long standing concern that a full constructability review was not conducted for the CM007 package. This is of particular concern given the number of interfaces with other contracts (CM006; CS179; CM014B; CS086). A very limited Constructability Review was conducted and a report issued in 4Q 2014, however the scope of the review was limited to only the addition of track work into the package and the constructability of the hybrid cast-in-place and pre-cast design. The PMOC does note, however, that a pre-cast concrete panel study was provided in February 2015 and is currently under review by the PMOC.

Procurement: The lack of stability in the contracting strategy and Contract Packaging Plan remains a concern. The PMT continued to shift and split scope among different packages, making it difficult to fully understand the cost and schedule impacts of these changes to the overall ESA Project. An updated draft Contract Packaging Plan (revision 10.0) was submitted on March 28, 2014, and has not been finalized as of the end of February 2015. ESA should make an effort to adhere to the CPP and minimize shifting scope for the remainder of the project. The latest scope shifts include: moving the CIL's out of the CQ033 package to be done as a separate procurement; and the re-structuring of the CH057 package to include 15 options. Additional scope shifts are discussed above in Section 1.0 under a. Design.

Contract CS179: The PMOC believes that the Contractor's inability to produce an acceptable schedule eleven months into the Contract is problematic. The CS179 Contract has numerous interfaces and access restraints that must be accurately characterized in the project baseline schedule. Contract mobilization activities related to key submittals are incurring delays reducing time to design, fabricate, and install equipment. Additionally, it was decided to change the design of the backbone communication system (BCS) and the telephone system (from conventional to VoIP) which could further delay completion of design activities for the Contract. The PMOC further notes that Contract CS179 has the added complexities of final systems engineering and design as part of the scope of work as well as multiple interfaces with each of four other large contracts: CM006; CM007; CM014B and CS084. As a result, additional PMOC

concerns about Contract CS179 are found in the discussion below under Project Funding/Budget, Project Schedule and Risk Management.

Contracts CH053/54A: The PMOC remains concerned that the CH053/CH054A Contracts continue to have delays, with a potential for additional construction delays and increased cost due to their high degree of dependence upon the railroads' Force Account support, which has been historically inconsistent. Although the contractor continues to progress its construction as rapidly as possible, important tasks continue to be postponed due to lack of Force Account protection, especially during February's inclement weather. To avoid further schedule slippage, the PMOC recommends that the ESA PMT work closely with the railroads' project teams to minimize down time and take maximum advantage of every track outage opportunity presented to them.

Contract CH057A: The PMOC remains concerned that the CH057A contractor is dependent upon the same railroad Force Account support resources as the CH053/CH054A contractor. This is a major contributor to CH057A poor schedule performance. Insufficient force account resources causes daily priority conflicts among these three contracts which the ESA PMT must do a better job of managing if it intends to mitigate delays to all three contracts. The PMOC recommends that the ESA PMT do everything possible to expedite the Substantial Completions of CH053 and CH054A so that CH057A has a clear path for its construction, at least until the contracts for the completion of Tunnels A, B/C, and D begin construction.

Project Funding/Budget: As stated in the Risk Management Section, the PMOC believes that the timing and availability of funding presents a significant schedule risk to the project. The timing of funding has impacted the CS179 package (restructured with options due to funding availability) and the CM007 procurement (moved out to the 4th Quarter of 2015 for full Award). Additionally, [REDACTED]

[REDACTED] The PMOC has recommended to the ESA Project Controls Group that a funding needs projection be developed along with the cash flow projection to assess the risks to the project should funding not be available in the necessary time frame. To date only the cash flow has been provided.

Project Schedule: As mentioned above, the PMOC is also concerned about the inability of the CS179 Contractor to produce a viable schedule eleven months into the Contract. The CM006 Contract has experienced significant delays and although ESA has recently approved a recovery schedule from the Contractor, his Q1-2015 performance to date has not met the revised production targets. Additionally, the procurement schedules for the CM014B and CM007 Contract packages have slipped substantially, which could impact the project critical path. Finalization of the baseline IPS continues to be delayed due to extend time incorporating the Harold schedule re-plan/re-sequencing effort that was completed in December 2014.

Risk Management: In the PMOC's opinion, funding availability continues to be a significant risk on the ESA project. Funding uncertainty has resulted in the PMT's delay of CM007 Contract award until later in 2015 due to budget constraints, and the restructuring of the CS179 Contract by splitting it into a base contract with seven options based on access restraints imposed by other contracts. These access restraints will significantly increase interface risks. This segmentation of construction packages has resulted in multiple inter-contract interfaces and milestones. The probability of successfully achieving all of them is minimal in the PMOC's opinion, and leads to the possibility of a ripple effect of delays and coordination difficulties

between contracts. There is very limited opportunity for the contractors to make up time lost to interface delays. Managing inter-contract handoffs and interfaces will be challenging. Schedule risks will be exacerbated if funding is not in place to award the options in the CS179 Contract Package as planned. Access Restraints in the CS179 Contract are correlated to the options in the Contract; and the CS179 Contract will also have multiple interfaces to the CM007 and CM014B Contracts. Given that this work is on the project critical path, delays in awarding the options will result in the use of Program schedule contingency as well as cost contingency because there is no provision for delays in awarding the options. Additionally, any delay or cost issues resulting from not meeting handoff milestone due to coordination failures may increase the level of risk retained by MTACC.

The PMOC remains concerned about the coordination risk retained by MTACC on the completion of the work in Manhattan, especially with regard to the construction and testing interface management for the systems work. When combined with the extensive scoping re-configuration changes associated with the Harold Interlocking work, the PMOC believes that this may create significant changes to the overall project risk profile. Preliminary indications from ESA are that the Harold work could extend as far out as April 2022 given current production trends that are primarily driven by insufficient force account resources coupled with delays due to changes in cutover sequencing and delays to current work (e.g., 12KV relocation); and design changes necessitated by Civil Speed Enforcement requirements mandated by the MTA.

APPENDIX A -- ACRONYMS

AFI	Allowance for Indeterminates
ARRA	American Recovery and Reinvestment Act
BA	Budget Adjustment
BCS	Backbone Communication System
C&S	Communication and Signals
CCC	Change Control Committee
CCM	Consultant Construction Manager
CCU	Code Compliance Unit
CM	ESA Construction Manager assigned to each contract
CMP	Cost Management Plan
CPOC	Capital Program Oversight Committee
CR	Candidate Revision
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
ET	Electric Traction
FA	Force Account
FAMP	Force Account Management Plan
FHACS	“F” Harold Alternate Control System
FFGA	Full Funding Grant Agreement
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
GCT	Grand Central Terminal
GEC	General Engineering Consultant
HTSCS	Harold Tower Supervisory Control System

IEC	Independent Engineering Consultant (to MTA)
IFB	Invitation for Bid
IPS	Integrated Project Schedule
IST	Integrated System Testing
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
NYCDEP	New York City Department of Environmental Protection
NYCDOB	New York City Department of Buildings
NYCT	New York City Transit
NYSPTSB	New York State Public Transportation Safety Board
OCO	Office of Construction Oversight (MTA)
PAC	Pneumatically Applied Concrete
PCO	Preliminary Change Order
PEP	Project Execution Plan
PMOC	Project Management Oversight Contractor (Urban Engineers)
PMP	Project Management Plan
PMT	ESA Project Management Team
PQM	Project Quality Manual
PWE	Project Working Estimate
QA	Quality Assurance
RAMP	Real Estate Acquisition Management Plan
RFP	Request for Proposal
RMCP	Risk Mitigation Capacity Plan
RMP	Risk Management Plan
ROD	Revenue Operations Date
ROW	Right of Way
RSD	Revenue Service Date

SC	Substantial Completion
SCC	Standard Cost Category
SIR	Supplemental Independent Reviewer
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
VoIP	Voice over Internet Protocol
WBS	Work Breakdown Structure
WBY	Westbound Bypass Tunnel
YSB	Yard Service Building

APPENDIX B – TABLES

Table 1: Summary of Critical Dates

	FFGA	Forecast (F) Completion, Actual (A) Start	
		Grantee*	PMOC**
Begin Construction	September 2001	September 2001(A)	September 2001(A)
Construction Complete	December 2013	December 2022 (F)	September 2023(F)**
Revenue Service	December 2013	December 2022 (F)	September 2023 (F)

* Source – Grantee forecast Revenue Operations Date per information presented to the MTA CPOC in June 2014.

**Source –Based on PMOC 2014 schedule trending analysis representing a medium degree of mitigation.

Table 2: Project Budget/ Cost Table

	FFGA			MTA's Current Baseline Budget CBB		Expenditures	
	(Millions)	(% of Grand Total Cost)	Obligated	(Millions)	(% of Grand Total Cost)	(Millions)	(% of CBB)
Grand Total Cost	\$7,386	100.00%	\$4,724	\$11,214	100.00%	\$6,074.20	54.17%
Financing Cost	\$1,036	14.00%	\$617	\$1,036	9.24%	617.6	59.61%
Total Project Cost	\$6,350*	86.00%	\$4,107	\$10,178	90.76%	\$5,456.60	53.61%
Federal Share	\$2,683	36.30%	\$1,148	\$2,699	24.07%	\$1,986.40	73.60%
5309 New Starts share	\$2,632	35.60%	\$1,098	\$2,436.60	21.73%	\$1,724.30	70.77%
Non New Starts grants	\$51	0.70%	\$50	\$67	0.60%	\$66.70	99.55%
ARRA	0	0.00%	0	\$195.40	1.74%	195.4	100.00 %
Local Share	\$3,667	49.60%	\$2,959	\$7,479	66.69%	\$3,470.20	46.40%

Table 3: Project Budget and Invoices as of January 31, 2015

Elements	Baseline Total Budget (June 2014)	Current Baseline Budget (Jan 2015)	Actual Awards (Jan 2015)	Paid to Date (Jan 2015)	Actual % Budget Paid
Construction	\$7,379,296,706	\$7,353,687,141	\$4,987,235,744	\$3,907,434,012	53.14%
Soft Costs Subtotal	\$2,798,474,304	\$2,814,777,982	\$1,630,007,258	\$1,549,194,317	55.04%
Engineering	\$720,615,810	\$720,615,810	\$653,835,918	\$633,161,476	87.86%
OCIP	\$282,613,620	\$282,613,620	\$206,370,653	\$185,230,529	65.54%
Project Mgmt.	\$972,168,644	\$972,168,644	\$653,912,728	\$616,568,369	63.42%
Real Estate	\$182,076,230	\$182,076,230	\$115,887,959	\$114,233,943	62.74%
Rolling Stock	\$202,000,000	\$202,000,000	\$0	\$0	0.00%
Project subtotal w/o Financing & RI	\$10,177,771,010	\$10,168,465,123	\$6,617,243,002	\$5,456,628,329	53.66%
Regional Investment Subtotal	\$758,260,953	\$758,260,953	\$272,435,735	\$82,504,104	10.88%
Construction (RI)	\$611,214,337	\$611,214,337	\$213,020,634	\$46,666,746	7.64%
Design (RI)	24,595,433	24,595,433	\$24,595,433	\$15,976,887	64.96%
OCIP (RI)	\$16,939,198	\$16,939,198	\$16,939,198	\$16,939,198	100.00%
Project Mgmt. (RI)	\$24,181,291	\$24,181,291	\$17,880,470	\$2,921,273	12.08%
Real Estate (RI)	\$0	\$0	\$0	\$0	0.00%
Rolling Stock(RI)	\$50,000,000	\$50,000,000	\$0	\$0	0.00%
Project Subtotal w/o Financing	\$10,936,031,963	\$10,926,726,076	\$6,889,678,737	\$5,539,132,433	50.69%
Finance Charges	\$1,036,100,000	\$1,036,100,000	\$617,607,000	\$617,607,000	59.61%
Grand Total	\$11,972,131,963	\$11,962,826,076	\$7,507,285,737	\$6,156,739,433	51.47%

Table 4: Comparison of Standard Cost Categories: FFGA vs. CBB

Standard Cost Category (SCC) No.	FFGA SCC baseline (YOE \$) M	June, 2014 Re-Plan (YOE \$)	Dec 2014 SSC (YOE \$) M	Jan 2015 SSC (YOE \$) M	Jan 2015 % of Re-Plan	Dec '14 to Jan '15 Change \$M	CBB Variance from FFGA %
10	1,989	3,405	3,399	3,413	100.23%	14	71.59%
20	1,169	2,238	2,264	2,251	100.58%	-13	92.56%
30	356	474	475	474	100.00%	-1	33.15%
40	205	611	605	608	99.51%	3	196.59%
50	619	606	567	573	94.55%	6	-7.43%
60	165	220	219	219	99.55%	0	32.73%
70	957	210	210	210	100.00%	0	-78.06%
80	1,184	1,975	1,975	1,975	100.00%	0	66.81%
█	█	█	█	█	█	█	█
Subtotal	6,813	10,178	10,178**	10,178**	10,178**	10,178**	49.39%
100	1,036	1,036	1,036	1,036	100.00%	0	0.00%
Total Project Cost (10 – 100)	7,849	11,214*	11,214*	11,214*	100.00%	11,214*	42.87%

*This total amount does not include Regional Investment amount of \$758,260,953.

** Sum of rounded values for current month is less than actual summed value

Reasons for Changes to SCC Codes:

SCC 10-Due to transfer of Temporary Power Maintenance from CSU99 to CS179, the Increased Force Account Budgets and issue changes.

SCC 20- Due to issue changes.

SCC 30- Due to the Increased Force Account Budgets and issue changes.

SCC 40- Due to transfer of Temporary Power Maintenance from CSU99 to CS179, the Increased Force Account Budgets and issue changes.

SCC 50- Due to the Increased Force Account Budgets and issue changes.



**COST ANALYSIS TABLES-
2014 Re-Plan- November 2014 baseline**

Table 5: ESA Planned Cash Flow

Quarter/ year	Construction \$(000)	Engineering \$(000)	OCIP \$(000)	Project Mgmt. \$(000)	Real Estate \$(000)	Rolling Stock \$(000)
Invoiced To Date	3,837,410,052	625,725,941	174,752,914	596,390,863	114,068,968	0
Remaining	3,548,451,714	94,889,869	107,860,706	375,777,781	68,007,262	202,000,000
4Q2014	159,139,617	4,018,264	0	16,014,544	0	0
Remaining Planned	3,389,312,096	90,871,605	107,860,706	359,763,237	68,007,262	202,000,000
Remaining Actual	3,361,468,601	89,521,790	107,671,651	357,288,386	67,980,830	202,000,000
1Q2015	158,808,550	3,950,940	0	15,666,401	0	0
2Q2015	148,090,046	3,994,839	4,425,268	15,840,473	3,427,824	0
3Q2015	158,349,548	4,038,738	4,498,615	16,014,544	3,484,638	0
4Q2015	150,074,456	4,038,738	4,498,615	16,014,544	3,484,638	0
1Q2016	190,727,218	3,994,839	4,449,717	15,840,473	3,446,762	0
2Q2016	190,538,714	3,994,839	4,449,717	15,840,473	3,446,762	4,262,235
3Q2016	209,991,019	4,038,738	4,498,615	16,014,544	3,484,638	13,070,855
4Q2016	193,468,104	4,038,738	0	16,014,544	3,484,638	13,070,855
1Q2017	191,280,417	3,950,939	4,400,819	15,666,401	3,408,885	12,786,706
2Q2017	180,831,611	3,994,839	4,449,717	15,840,473	3,446,762	12,786,706
3Q2017	150,687,093	4,038,738	4,498,615	16,014,544	3,484,638	13,070,855
4Q2017	150,139,949	4,038,738	4,498,615	16,014,544	3,484,638	13,070,855
1Q2018	162,268,503	3,950,939	4,400,819	15,666,401	3,408,885	12,786,706
2Q2018	163,902,316	3,994,839	4,449,717	15,840,473	3,446,762	12,928,780
3Q2018	165,491,619	4,038,738	4,498,615	16,014,544	3,484,638	13,696,710
4Q2018	163,375,120	4,038,738	4,498,615	16,014,544	3,484,638	14,014,767
1Q2019	155,623,337	3,950,939	4,400,819	15,666,401	3,408,885	13,710,098
2Q2019	145,591,558	3,994,839	4,449,717	15,840,473	3,446,762	13,862,433
3Q2019	144,263,327	4,038,738	4,498,615	16,014,544	3,484,638	14,014,767
4Q2019	122,877,524	4,038,738	4,498,615	16,014,544	3,484,638	14,014,767
1Q2020	50,376,841	3,994,839	4,449,717	15,745,452	2,272,590	9,458,123
2Q2020	28,082,800	3,994,839	4,449,717	15,561,541	0	933,653
3Q2020	9,913,384	2,721,758	4,594,094	10,602,368	0	318,057
4Q2020	2,750,374	0	4,791,416	0	0	0
1Q2021	1,808,670	0	4,687,255	0	0	0
2Q2021	0	0	26,040	0	0	0
3Q2021	0	0	0	0	0	0
4Q2021	0	0	0	0	0	0
Subtotal	10,299,232,411	275,283,264	318,894,448	1,092,829,404	203,995,354	605,857,925

**Table 6- MTA ESA Project Summary by FTA Standardized Cost Categories
2014 Re-plan (\$ in Thousands)**

Standardized Cost Category	FFGA	May 2012 Re-Baseline	June 2014 Re-Plan	Awarded Value (4Q14)	Paid To Date (4Q14)
10- Guideway & Track Elements	\$1,513,998	\$2,943,165	\$3,405,463	\$2,680,463	\$1,875,309
20- Stations, Stops, Terminals, Intermodal	\$1,168,655	\$1,513,998	\$2,238,235	\$1,226,820	\$1,050,349
30- Support Facilities, Yards, Shops, Admin Buildings	\$356,264	\$384,583	\$474,177	\$209,900	\$200,841
40- Site Works and Special Conditions	\$205,105	\$491,341	\$610,570	\$417,761	\$407,856
50- Systems	\$619,343	\$698,296	\$605,592	\$389,434	\$261,070
60-ROW, Land, Existing Improvements	\$165,280	\$203,639	\$219,397	\$153,209	\$151,416
70- Vehicles	\$493,982	\$674,372	\$209,938	\$7,838	\$5,549
80- Professional Services	\$1,184,000	\$1,648,606	\$1,975,398	\$1,494,826	\$1,417,392
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Sub-Total	\$6,349,900	\$8,708,000	\$10,177,771	\$6,580,251	\$5,369,782
Estimated Financing Cost	\$1,036,100	\$1,116,000	\$1,036,000	\$617,607	\$617,607
Total	\$7,386,000	\$9,824,000	\$11,213,771	\$7,197,858	\$5,987,389

Table 7 – ESA Core Accountability Items

Project Status:		Original at FFGA	Current*	ELPEP **
Cost	Cost Estimate	\$7.368B	\$10.178B	\$8.119B
Schedule	RSD	December 31, 2013	December 2022	April 30, 2018
Total Project Percent Complete	Based on Invoiced Amount	54.9		
	Based on Earned Value	NA		
Major Issue	Status	Comments		
Major Procurements Delays	CM014B was advertised in May 2014; ESA did not make its recommendation to award forecast date of November 2014, and did not make its last forecast date of November 2014 for advertising CM007. CM007 was advertised in late December 2014, with proposals due on May 1, 2015, and the CM014B Award and NTP were issued February 2, 2015. Award of CM007 is contingent upon funding availability.	PMOC remains concerned about the potential project schedule impacts of procurement delays on these two packages, CM014B and CM007, since they are on the critical and near critical paths for the project.		
Project Schedule	MTACC presented a new baseline schedule to the MTA CPOC in June 2014, with an RSD in December 2022. This schedule incorporates 22 months of Program level contingency. It should be noted that there have been significant changes in elements comprising the baseline schedule, including a re-planning of the Harold work and a restructuring of the CM007 package procurement.	CM006 has experienced significant delays and has yet to meet the approved recovery schedule production targets. The PMOC is also concerned about the inability of the CS179 Contractor to produce a viable schedule. This key Contract is complex and on the critical path		
Harold Re-planning	The ESA re-planned the remaining work at Harold, as such, the Harold baseline schedule that formed the basis of the Program schedule presented to the CPOC in June 2014, is no longer valid.	Work within and around the Harold Interlocking is subject to influences outside of the control of ESA. Continuing issues with the level of Amtrak force account support, which is currently providing only 30-35% of the planned level required to maintain the current schedule would be significant and could delay the Harold Interlocking work another three years until 2022 under the worst-case trending scenario.		

* Current Budget was approved by MTA CPOC in June 2014. ** 2010 Enterprise Level Project Execution Plan (ELPEP) reflecting medium level of risk mitigation, excluding financing cost of \$1,116 million.