

PMOC MONTHLY REPORT

East Side Access (MTACC-ESA) Project

Metropolitan Transportation Authority

New York, New York

Report Period May 1- May 31, 2015



PMOC Contract No. DTFT6014D00017

Task Order No. 2, Project No. DC-27-5287, Work Order No. 1

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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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REPORT FORMAT AND FOCUS

This report is submitted in compliance with the terms of the Federal Transit Administration (FTA) Contract No. DTFT6014D00017, 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 the end of April 2015, MTACC reported that the overall Engineering effort was 98.9% complete, a decrease of 0.3 % since last month, based on Earned Value for Design Deliverables, compared with a Planned status of 100%. Their Cost Report shows 90.1% of the overall EIS & Engineering category as invoiced and 90.2% of the budgeted section titled "Design" (including Design Settlement) as having been invoiced.

Design work on the new, stand-alone package CH061A (completion of Queens Tunnels "A" and "D") continued. The 60% review submission has been completed and has been submitted to LIRR for review. The 90% review submission is scheduled for completion on July 8, 2015.

At a technical meeting with the owners of 415 Madison Avenue earlier this year, the owners decided that they will only relocate the existing utilities (including water service, sewer, steam, mechanical duct work, electrical lines and the telephone service) within their building. ESA will design the required structural reinforcing. MTACC has completed the design agreement (MOU) with the owner, which will enable the design to begin. Owner's comments have been received.

Once the MOU is signed, the scope of work to repackage CM015 and CM015A will be completed and the Proposed Change Order, currently being prepared, will be finalized.

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. Completed bid package documents were issued by the GEC on February 27, 2015. The package is now structured to include 15 options. The contract was advertised on March 26, 2015 and the bid opening date has been extended from May 19, 2015 to June 18, 2015. Three addenda have been issued and the 4th will provide responses to technical questions.

CH058 has been 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 has split the scope of work into two separate Contracts: CH058A will contain Tunnel B/C approach structure; CH058B will contain the East Bound reroute. The design work for this package is currently on hold and a Proposed Change Order is being developed by the GEC.

On the Mid-Day Storage Yard Contract, CQ033, the 100% design submittal is forecast for mid-June 2015 pending LIRR comments on the 90% design submittal. Advertise date is planned for early Q3-2015. The GEC continues work on the procurement package VQ033 to provide the eight CILs for contract CQ033. The VQ033 package 100% design submission is scheduled for June 9, 2015.

b. Procurement

As of the end of April 2015, the Cost Report showed total procurement activity on the project as 69.2% complete, with \$7.047 billion in contracts awarded out of the \$10.178 billion current reported budget.

The CM007 package was advertised on December 23, 2014 and contract documents were made available for proposers on January 15, 2015. The pre-proposal conference and site tour were held in early March 2015. The proposal due date has been extended a second time from June 2, 2015 to July 1, 2015, and the cost proposals are due 3 weeks later. The cut-off date for questions is June 5, 2015. 10 Addenda have been issued.

Contract CH057, Loop Box Approach, EBRR West Approach & Tunnel, was advertised on March 26, 2015, and the bid date has been extended from May 19, 2015 to June 18, 2015. The bid date has been extended in response to a bidder's request and because additional time has been made available due to the delay of the H5, H6 and Location 30 cutovers.

The PMT decided on a stand-alone package, CS086, for the signal installation work. The GEC design has been completed but now needs to be revised to incorporate the requirements for Positive Train Control (PTC). The Proposed Change Order is currently being developed by the GEC.

c. Construction

The PMT reported in its April 2015 Monthly Progress Report that the total construction progress reached 55.8% complete vs. 56.3% planned; the PMOC calculations based on data in the ESA Cost Report agree with the ESA completed percentage.

CM005- Manhattan South Structures: The Estimate at Completion for CM005 increased slightly during April 2015 to \$239,872,860 due to inclusion of pending and potential contract modifications. The MTACC forecast for Substantial Completion remained at February 6, 2016. Actual construction progress for April 2015 was 5.5% versus 2.1% planned. Cumulative progress through April 30, 2015, was 76.4% actual versus 76.3% planned.

Construction Progress: During May 2015, the CM005 contractor poured the concrete slab in Tunnel L402 and placed pneumatically applied concrete (PAC) in the archway of Access Tunnel #1, began to place PAC in the archway of GCT 1&2 East Wye Cavern, and continued to form and place intermediate level interior walls and the upper level slab on the west side of the 38th St. Vent Facility, as well as continued to pour concrete for the lower level exterior walls in the Eastbound Cavern.

CM006 – Manhattan North Structures: The Estimate at Completion for CM006 increased slightly to \$320,566,750 during April 2015 due to inclusion of pending and potential contract modifications. The MTACC forecast for Substantial Completion remained at December 30, 2016. Actual construction progress for April 2015 was 3.2% versus 6.6% planned. Cumulative progress through April 30, 2015, was 23.3% actual versus 43.1% planned.

Construction Progress: During May 2015, the CM006 contractor continued to install utility conduit in the Roosevelt Island and 2nd Avenue Vent Facilities, form and pour concrete for the floor slab of the GCT 4 East Wye Cavern, and pour concrete archways in Tunnel #s 404, 403, 402, and EB2. The contractor also began to waterproof the GCT 5 East Wye Cavern archway, form, install re-bar and embedments, and pour concrete for the mezzanine level slab in the Eastbound Cavern and the exterior walls of the Westbound Cavern, began to place PAC for the exterior intermediate level walls at the 50th St. Vent Facility, began to install re-bar, form, and began to pour concrete for the invert slab on the east side of the 55th St. Vent Facility.

CM013A – 55th Street Vent Facility: MTACC reports that through April 30, 2015, the EAC was reduced slightly to \$57.24 million. Work progress continues to be slowed during manual backfilling of the Plenum Roof to street level, along with delays in ConEd Cable Supports and the new Hoisting System in the Upper and Lower Fan Rooms. The forecast Substantial Completion through April 30, 2015 is July 29, 2015. The MTACC CCM forecasts that Substantial Completion will be further extended until October 2015, however, due to the above noted delays. Cumulative progress was 86.7% actual vs. 94.8% planned.

Construction Progress:

Plenum: During May 2015, the focus of the work was in the plenum. The contractor continued construction of new Sewer Manhole #3 in the East Plenum, completed construction of the north and south street ventilators on the East Plenum side, and continued installation of Electrical Manholes over the West Plenum. Access to the Cavern and Shaft is restricted as the stairwell and shaft walls are extended through the shaft up to the Plenum. Construction of the Plenum Roof and manual backfilling to street level also continue.

CM014A – Concourse and Facilities Fit-Out: MTACC reports that through April 30, 2015, the EAC increased to \$59.04M from the previous \$58.68M due to contract modifications for acceleration. The acceleration change order is for the contractor to complete the base contract work by July 2, 2015, when the CM014-B access restriction to the area expires. MTACC Forecast Substantial Completion date has been extended to September 7, 2015. This extension

reflects the MTACC forecast for completion of the Battery Exhaust in the substations, the ConEd Summer Moratorium, work to energize the system, and the follow-on commissioning. The contractor's slow progress in prosecuting the work also continues to be a factor in substantial completion delays. As of April 30, 2015, MTACC reported that the actual percent complete was 99.8% vs. 100% planned.

Construction Progress: Installation of fire stopping continues with weekly quality inspections. Painting of CMU walls continued throughout. Ductwork and piping installation is ongoing in Zones #1 & #2. Sprinkler/Standpipe installation nears completion in Zones #4 & #5. 600V cable installation continues. CMU wall erection is complete with the work in Shaft #2. Branch feeder and conduit installation is ongoing throughout. Installation of the Roll-Up Doors and controls is complete. Installation of the FM-200 Fire Suppression System and 16341 Switchgear also continued. System grounding continued throughout. SCADA installation continued in Zones #1 & #2. Installation of the Trapped Key Interlocking Hardware (Kirk Key) is ongoing throughout. Installation of the Battery Exhaust System continued in Zone #2.

CM014B – Concourse and Facilities Fit-Out: MTACC reports that through April 30, 2015 the EAC is \$429.09M from the original \$404.62M, the base contract award amount. The change in EAC reflects some pending change orders and pre-award negotiated contract options that include the new E.43rd St Entrance and new E.45th St. Entrance. The substantial completion date is October 6, 2015 from the original August 18, 2018. MTACC reports that through April 30, 2015 the actual progress was 1.3% vs 0.7 planned. This reflects submittals, schedule development, limited mobilization and work in the new concourse.

Construction Progress: The Contractor began mobilization at the Madison Yard site in early May 2015 and began to survey in the concourse. This will be ongoing throughout contract duration. The contractor also began excavation and installation of ductbanks in Zone #1, removal of existing rail in Zone 31 and continued installation of temporary lighting and power. The contractor also mobilized for the MPT at E.48th St. and E. 44th St. Installation of the mini-piles at E.48th, St. is scheduled to begin on July 15, 2015. The current forecast for the start of escalator installation in Wellway #1 is July 2016.

CS179 – Systems Package 1: The Estimate at Completion for CS179 increased slightly during April 2015 to \$553,235,902 due to inclusion of pending and potential contract modifications. The MTACC forecast for Substantial Completion remained at November 25, 2019. The MTACC has not generated a progress curve for CS179 yet, so no Actual versus Planned construction data is available.

Construction Progress: During May 2015, the CS179 contractor continued to install conduit and utility duct in the Roosevelt Blvd. and Vernon Ave. Vent Structures and the B-10 substation, conduit in the Yard Lead Tunnel, and began concrete demolition at the 2nd Avenue Vent Structure and temporary power installation in Madison Yard.

CS084 – Traction Power Substations: The Estimate at Completion for CS084 was reduced during April 2015 to \$71,248,884, whereas the project budget remained at \$78,373,772. The MTACC forecast for Substantial Completion was extended by one month to February 1, 2020. The MTACC has not generated a progress curve for CS084 yet, so no Actual versus Planned construction data is available.

Construction Progress: As of May 31, 2015, the CS084 contractor had not begun any significant construction yet.

Queens Contracts:

CQ032 – Plaza Substation and Queens Structures: The Estimate at Completion for CQ032 decreased slightly during April 2015 to \$246,668,526 due to a re-forecast of pending and potential contract modifications. The MTACC forecast for Substantial Completion remained at March 10, 2016. Actual construction progress for April 2015 was 1.4% versus 2.3% planned. Cumulative progress through April 30, 2015, was 77.5% actual versus 83.9% planned.

Construction Progress: During May 2015, the CQ032 contractor completed erection of structural steel for the Yard Services Building and the concrete pour of the C07 floor slab in the Early Access Chamber (EAC), continued benchwall construction in Tunnels A, B/C, D, and the 63rd St. Tunnel, continued to backfill the west end of the Bellmouth with mechanically stabilized earth (MSE), and began concrete placement of floors and encasement of structural columns in the Plaza Vent Structure.

Harold Interlocking:

CH053 Contract – Harold Structures Part 1 and G.0.2 Substation: The Estimate at Completion for CH053 decreased slightly during April 2015 due to re-forecast of pending and potential contract modifications. The MTACC forecast for Substantial Completion was extended by 3 weeks to August 3, 2015. Actual construction progress for April 2015 was 0.3% versus 0.0% planned (project was supposed to be complete by now). Cumulative progress through April 30, 2015, was 95.1% actual versus 100.0% planned.

Construction Progress: During May 2015, the CH053 contractor completed waterproofing and ballast placement on the Westbound Bypass Bridge over 43rd St. and continued work to place the C1 and C2 12kV feeder cables in service between Sub 44 and Amtrak's Sunnyside Yard Frequency Converter, installation of 2000MCM cables and ConEd metering changes in the G02 Substation, installation of communications duct bank at the G03 Motor Generator, establishment of Westbound Bypass track roadbed (with ballast) between 48th and 39th Sts., and restoration of slope and hydro-seeding of the embankment between 43rd and 39th Sts.

CH054A – Harold Structures Part 2A: The Estimate at Completion for CH054A decreased slightly during April 2015 to \$56,740,016 due to a re-forecast of pending and potential contract modifications. The MTACC forecast for Substantial Completion was extended by 9 weeks to September 8, 2015. Actual construction progress for April 2015 was 1.6% versus 0.0% planned (project was supposed to be complete by now). Cumulative progress through April 30, 2015, was 95.2% actual versus 100.0% planned.

Construction Progress: During May 2015, the CH054A contractor continued to construct Access Road #1 (AR-1) and Loop Track 1A subgrade between Queens Blvd. and Thompson St. and completed slope restoration and hydro-seeded the embankment between these same locations.

CH057A – Part 3 Westbound Bypass: The Estimate at Completion for CH057A increased slightly during April 2015 to \$116,300,588 due to inclusion of pending and potential contract modifications. The MTACC forecast for Substantial Completion was extended by 2 weeks to October 24, 2016. Actual construction progress for April 2015 was 3.3% versus 6.2% planned. Cumulative progress through April 30, 2015, was 19.7% versus 55.4% planned.

Construction Progress: The CH057A contractor installed the remaining 2 soldier piles in the West Approach and 8 secant piles in the East Approach of the Westbound Bypass Structure during May 2015. The contractor's pile installation was delayed for approximately 2 weeks during the month because some of its equipment was not properly grounded for work in electrified territory. The contractor also continued to install de-watering wells throughout the jobsite and excavate for steel communications poles between 48th St. and Woodside Interlocking.

Railroad Force Account:

PMOC Note about Amtrak Force Account Packages FHA01, FHA02, and FQA65: As explained in the April 2015 PMOC Monthly Report, Substantial Completion dates for all Amtrak Force Account work packages, including FHA01, FHA02, FHA03, and FQA65 will be extended approximately 24 months when the "ESA First" Schedule Re-baseline is formally adopted by the MTACC. The dates shown in the following paragraphs reflect that extension.

FHA01 – Harold Stage 1 Amtrak: The Estimate at Completion for FHA01 remained at \$18,824,861 during April 2015. The MTACC forecast for Substantial Completion was shortened by 1 month to January 28, 2018. Actual construction progress for April 2015 was 0.0% versus 0.2% planned. Cumulative progress through April 30, 2015, was 97.8% actual versus 99.2% planned.

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

FHA02 – Harold Stage 2 Amtrak: The Estimate at Completion for FHA02 remained at \$45,369,618 during April 2015. The MTACC forecast for Substantial Completion was shortened by 2 weeks to January 19, 2020. Actual construction progress for April 2015 was 0.8% versus 0.4% planned. Cumulative progress through April 30, 2015, was 94.8% actual versus 96.3% planned.

Construction Progress: C&S personnel completed signal trough relocation for CH057A installation of the Westbound Bypass pump house adjacent to "Q" Tower. Amtrak Electric Traction (ET) personnel made catenary and body span revisions at the B-915 catenary pole adjacent to Queens Blvd. overhead bridge, dead-ended the #125 signal feeder cable into Sub 44, and installed catenary bonds at poles B-913, B-921, B-922, and B-923.

FQA65 – Loop Interlocking Amtrak: The Estimate at Completion for FQA65 was reduced slightly during April 2015 to \$29,663,352 due to re-forecast of pending and potential contract modifications. The MTACC forecast for Substantial Completion remained at September 11, 2022. Actual construction progress for April 2015 was 0.4% versus 3.9% planned. Cumulative progress through April 30, 2015, was 9.3% actual versus 36.3% planned.

Construction Progress: During May 2015, C&S personnel continued to pull, terminate, and test signal cables at new "T" Interlocking CIL and excavate for cross track conduit in new Loop Interlocking.

FHL01 – Harold Stage 1 LIRR: The Estimate at Completion for FHL01 remained at \$20,804,621 during April 2015. The MTACC forecast for Substantial Completion was extended by 6 weeks to May 6, 2016. Actual construction progress for April 2015 was 0.0% versus 0.8% planned. Cumulative progress through April 30, 2015, was 100.0% actual versus 100.0% planned (FHL01 Stage 1 work was supposed to be complete by now).

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

FHL02 – Harold Stage 2 LIRR: The Estimate at Completion for FHL02 was increased to \$79,055,829 during April 2015 to include a \$2,430,000 transfer for the Woodside Wood Pole Line installation work. The MTACC forecast for Substantial Completion remained at April 11, 2018. Actual construction progress for April 2015 was 1.8% versus 1.9% planned. Cumulative progress through April 30, 2015, was 70.1% actual versus 80.5% planned.

Construction Progress: During May 2015, LIRR Signal personnel continued to pull, terminate, and meggar signal cables at the new “H3” Central Instrument Location (CIL) and continued to make ESA-31 signal revisions at the existing Harold CIL, Communications personnel completed aerial cable fiber optic installation between Location 30 and 48th St., High Tension personnel continued to install 3rd rail conduit and apparatus at turnouts installed in 2014, and B&B personnel completed renovations in the existing Harold Tower building.

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

GEC Quality: The GEC Quality Manager was expecting to be reassigned but that has not happened yet. The ESA Quality Manager plans to perform an audit of ESA GEC Quality in June 2015 and has invited the PMOC to observe it.

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 (NCR) was generated. The crack was a maximum of 0.75 inch deep and did not expose the rebar. An approved standard repair procedure was proposed to chip out the defective area to sound concrete and install a patch with a specified material. The GEC has approved this repair and determined that there are no structural issues. This column is not exposed to the public and will not receive an architectural finish. The contractor has completed the repair work and the NCR has been closed. This item is closed.

As-Built Process Audits: The ESA Quality Manager reviewed the As-Built Drawing Process on contracts CH057A and CM006 earlier in 2015. CH057A was acceptable but CM006 was behind schedule. A follow-up review of CM006 has been conducted. Contracts CH053, CH054A, CQ032, CM004, CM014A, CM005, CM013 and CM013A were originally audited in 2014. Current status of each contract is being discussed at the Monthly Progress Meeting. The ESA Quality Manager will perform audits on a selective basis. This item is closed.

CS179 (Systems Package 1 – Base Contract): This contract was awarded twelve months ago and many submittals are late and/or unacceptable. The Contractor’s original Quality Manager left. The replacement left in February 2015. The ESA Quality Manager had directed the contractor’s Corporate Quality Manager to get more involved on this contract. The PMOC agreed with this action and had recommended it in February 2015. Since the personal involvement of the contractor’s Corporate Quality Manager, the PMOC has seen an improvement of the contractor’s implementation of its quality system. The contractor hired a new permanent Quality Manager who was scheduled to start on May 4, 2014. ESA and MTACC Quality Management rejected him because, while he had many years of Systems experience, he did not have any Quality experience. The contractor has several other ESA contracts and its Corporate Quality Manager has been approved as the Quality Manager for this contract for the next 60 days. In addition, the ESA PMT met with the contractor’s upper management in mid-May to discuss quality issues and the open CS179 Quality Manager’s

position. As a result, the parties agreed to temporarily elevate a Quality Manager from several other ESA contracts to act as the contractor's CS179 Quality Manager, and the PMOC believes that this should have a positive influence on the outstanding quality issues.

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. MTACC's Chief of Quality and System Certification met with the ESA Heavy Civil Project Executive and resolved the outstanding issues. This item is closed.

Quality Training: Quality training for CS179 and CS084 will be conducted on both contracts by the ESA Quality Manager in June 2015.

2.0 SCHEDULE DATA

ESA submitted its IPS #69 data date May 1, 2015 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."

The critical path passes through the procurement of Contract CM007 and then to construction of the structure within the GCT. The path then shifts to CS179 work within the Train Operations Center (TOC) and finally through Integrated Systems Testing, Starting, Commissioning and RSD.

In its IPS #69 variance report, ESA reported that contract CM006 is experiencing significant delay but neither the IPS nor its variance report stated the amount of delay. The PMOC understands that there is about 2 to 3 months of delay for Milestone #2 which is access for contract CM007 based on CM006's contract schedule. Additionally delay on contract CM006's substantial completion could create an access restraint and further delay for contract CM014B.

ESA also reported that the delay on the construction of the 23rd St underground Communication Room and Vent Shafts on contract CQ032 is impacting Milestone#4B-1 (which is access milestone for contract CS179). This access milestone (AR02) in contract CS179 baseline schedule has a start date of March 31, 2015; however, contract CQ032's schedule shows an access date of February 2, 2016 which is 308 days of delay.

CS179 Contractor baseline schedule submission was approved as noted, however the contractor's IST portion of the schedule has not been submitted yet. The CS084 baseline schedule submission was returned to the Contractor March 20, 2015 as revise and resubmit. The contractor submitted a revised baseline schedule in late May and ESA continues to review that submission.

ESA has stated that Harold "ESA First" re-sequenced schedule has been incorporated into the IPS. This schedule plan modifies the existing contract work in Harold and reconfigures the remaining Harold contracts to be awarded. This has created multiple major float paths that must

be monitored closely to identify and help mitigate any potential issues. To date, the Harold re-packaging includes transfer of some FHL03 turnout installation work into contract CH057D and the division of the original CH058 contract into 2 parts, CH058 (completion of Tunnel B/C) and CH058B (Eastbound Re-route construction).

Table below shows 90 day look ahead of important milestones (total float of less than 180 days)

Table 2-1: Critical Milestones 90 Day Look Ahead (from ESA IPS #69)

Activity ID	Activity Name	Start	Finish	Total Float	Contract	Location
FHL01-1140	Complete Trough H1 to H2 (WBY)		11-Jun-15	84	FHL01	H
CH057-2030	CH057 - Bid Due Date		18-Jun-15	114	CH057	H
CH058A-0010	MTA issue directive to GEC		24-Jun-15	11	CH058A	H
CH057-2050	Issue Notice of Award(CH057)		6-Jul-15	160	CH057	H
VQ033-1030	VQ033 IFB Advertise Date	7-Jul-15		0	CQ033.VQ033	Q
CH057NTP	NTP CH057-Harold Structure Pt 2/3: 48 th Bridge and D pit & Appr	7-Jul-15		160	CH057	H
SUMFHA02-1630	Install ZN1 Switch (749)		12-Jul-15	168	FHA02.2	H
SUMFHA02-1650	Install DN2 Switch (743B)		25-Jul-15	161	FHA02.2	H
FHL02-3190	Ready to Demo Rack at Woodside		31-Jul-15	75	FHL02	H
CQ033-1001000	CQ033 IFB Advertise Date	6-Aug-15*		76	CQ033	Q
VQ033-1050	VQ033 Bid Due Date		7-Aug-15	9	CQ033.VQ033	Q
FHL02-3290	Ready to Install Loc. 30 CIL		14-Aug-15	74	FHL02	H
FHL01-1150	Complete Trough H2 to H3 (Track A)		24-Aug-15	84	FHL01	H
CH057D-0010	Issue directive GEC	2-Sep-15		70	CH057D	H

Project Critical Path:

The table below shows ESA critical path and its contingency for three different RSDs.

Activity Name	Original Duration	Start	Finish
CM007 Contract	1054	06-Mar-15 A	19-Apr-19
IST INTEGRATED SYSTEM TESTING (PART OF CS179)	153	19-Apr-19	26-Nov-19
F START-UP/TESTING/COMMISSIONING/REVENUE SERVICE	1113	27-Nov-19	13-Dec-22
Early Revenue Service Date			25-Mar-20
ESA IST Contingency 1 (IST Completion Contingency to LIRR)	170	27-Nov-19	14-May-20
Stakeholder agreed additional IST Contingency 2 (5 months)	154	15-May-20	15-Oct-20
COMPLETION OF INTEGRATED SYSTEM TESTING (WITH CONTINGENCY)	0		15-Oct-20
Target Revenue Service Date			12-Feb-21
ESA Program Schedule Contingency	365	16-Oct-20	15-Oct-21
Stakeholder agreed additional Program Contingency (10 months)	304	16-Oct-21	15-Aug-22
ESA Project Substantial Completion for LIRR Final 3 Months	0		15-Aug-22
ESA Planning Contingency Ready for LIRR Final 3 Months Period	30	16-Aug-22	14-Sep-22
LIRR Final 3 Months Period	90	15-Sep-22	13-Dec-22
LATE - Begin LIRR Revenue Service To GCT	0		13-Dec-22
Late Revenue Service Date			13-Dec-22

Schedule Contingency: IPS#69 is based on an RSD of December 2022 and has multiple levels of contingency.

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. 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 April 2015 Progress Report shows the total project progress was 56.5% versus 56.7% planned, against the Current Baseline Budget (CBB) of \$10.178B, and the construction progress as 56.5% vs. 56.7% 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 agrees with the ESA percentage completed. A PMOC review of the ESA Planned Cash Flow Chart shows that it is based on a 2022 completion rather than the ESA announced Target of 2020, so the "Planned Value" at any point will be lower than is required to sustain the ESA current Target completion date. This has been included as one of the PMOC Cost Questions for the May 2015 meeting with ESA.

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. In order to find adequate budget to shift to CM014B for the Award, ESA took significant funds from several of these subcategories of un-allocated contingency, thereby causing some to go into a negative contingency status. This is not a CMP approved budgeting procedure.

[REDACTED]

[REDACTED]

[REDACTED]

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Change Orders/Budget Adjustments: The PMT reported that over the last month, five (5) - Construction change orders and two (2) Design change orders over \$100K were executed for a total of approximately \$5.0M Construction and \$1.7M Design. Those included MODs to VM014 for \$4.1M to align the scope with CM014B and MODs to the GEC for VH051A signal re-sequencing for \$1.2M and VQ033 Mid-Day Yard CIL Repackaging.

4.0 RISK MANAGEMENT

The last monthly risk meeting held by ESA was in January 2015. Since that time, ESA has not succeeded in addressing the risk topics as they had planned during the subsequent monthly cost and schedule review meetings. At the May 20, 2015 monthly cost/schedule review meeting, the PMOC requested that the monthly stand-alone risk meetings be resumed.

The Contract CM007 risk workshop was conducted over a two-day period on April 8 & 9, 2015. The preliminary risk report was forecast to be issued by April 28, 2015 but this did not occur. At the FTA/MTACC Executive Meeting on May 21, 2015, the FTA and the PMOC were advised that the distribution of the draft risk report was discussed by upper management at ESA-PMT, MTACC, MTA and included the MTA President. Because of the very high level of concern about the confidentiality of the risk results, MTA decided to proceed with a very limited internal distribution of the draft risk report and a very small group participated in the May 1, 2015 internal briefing. The FTA noted that they and the PMOC had participated in the workshops and would now like to review the report written by the MTACC’s risk facilitator. MTACC responded that they would discuss FTA’s request with MTA upper management and provide an answer to the FTA. As of May 31, 2015, MTACC has not provided the draft risk report.

Based on long standing issues and concerns regarding Amtrak's ability to provide sufficient force account support to the ESA project, especially Electric Traction (ET) resources, ESA completed a Harold schedule re-sequencing in December 2014, also known as "ESA First," that advances work elements required for the new LIRR service to GCT and pushes back the FRA funded High Speed Rail Work beyond 2017. This work was also falling behind schedule due to the overall delays to much of the Harold work. MTACC will require FRA approval for a time extension for the funding, but formal approval will only occur after FRA approves the MTA generated grant amendment. In early April 2015, MTACC presented the Harold Re-Sequencing Plan to the Amtrak engineering department. The MTACC met with the LIRR Transportation Department to discuss the "ESA First" schedule in May 2015 and it plans to meet with Amtrak's Transportation Department in June 2015 for the same purpose.

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. MTACC submitted its revised Technical Capacity and Capability Plan (ESA and SAS) on April 13, 2015. The PMOC returned comments to the FTA on May 7, 2015.
- **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; and Risk-Informed Decision Making.
- **Project Management Plan:** The PMOC completed its review and evaluation of MTACC's revisions and responses and submitted its findings to FTA-RII in 4Q2014. MTACC subsequently submitted a revised Rev. 10 on March 13, 2015 that included updated information on the Change Control Committee. The revised Rev. 10 of the PMP is has been reviewed by the PMOC against the PMOC's evaluation in 4Q2014. The next step will include meetings between the PMOC and the PMP section sponsors to resolve the outstanding PMOC evaluation comments.

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 Schedule Management Plan (SMP) and Cost Management Plan (CMP) sub-plans to the PMP. The PMOC's opinion is that this continues to be a serious deficiency and needs to be resolved as soon as possible. [Ref: ESA-114-Sep13] The PMOC's major areas of concern include:

- **Cost/Schedule Contingency:** In November 2014 ESA 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. A series of meeting have been held to discuss the MTACC drawdown curves and the FTA/PMOC proposed cost and

schedule contingency minimums, the latest occurring on May 21, 2015. There are currently no issues with the FTA schedule contingency minimums but more discussion is required to reach agreement on the cost contingency minimums.

- **Schedule Management Plan (SMP):** The ESA project remains non-compliant with requirements for Integrated Project Schedule (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 expected that MTACC would start to meet the requirements set forth in its SMP in the above-referenced areas. MTACC plans to review and update the SMP after the TCC and CMP updates.
- **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 not made significant progress in this area. MTACC submitted its revised Cost Management Plan (ESA and SAS) on April 13, 2015. The PMOC returned comments to the FTA on May 8, 2015.

Revisions to the ELPEP Document: As part of the process of updating the ELPEP document, the PMOC has performed an independent evaluation of the minimum required cost and schedule contingencies going forward. The PMOC's recommendations were presented at several meetings with MTACC, the last on May 21, 2015. Additional discussion is required to reach agreement on the cost contingency minimums.

The next ELPEP Quarterly Review Meeting with MTACC, FTA-RII, SAS and ESA projects and the PMOC has been scheduled for June 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. In response to the continuing problems with the CM005 contractor regarding site safety, MTACC had directed the CM005 contractor to retain a third-party safety oversight consultant to evaluate the safety program, prepare recommendations and implement changes. The safety consultant started on the project in April 2015. The PMT did not report any significant security issues in its 1Q2015 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 working closely with the GEC to help make this happen. The continuing shifting of scope between packages and the creation of new packages has made finalizing design documents and drawings very challenging and time consuming.

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 during the period January to May 2015 (latest information available to PMOC), making it difficult to

fully understand the impact of these changes to the overall ESA Project. An updated draft Contract Packaging Plan (revision 10.0) was submitted on March 28, 2014 and the next revision still has not been issued as of May 31, 2015. ESA should make an effort to adhere to the current version of the CPP and minimize shifting scope for the remainder of the project.

Additionally, the latest shifts under consideration include moving scope from CH053 into the new CH061A (Harold Structures-Tunnel A) to mitigate some of the delay in CH053. Furthermore, the East Bound Re-route tunnel construction method is being revised from a top down to a traditional cut and cover method and the CH058 package will be divided into two separate Contracts. CH058A will contain the Tunnel B/C Approach Structure; CH058B will contain the East Bound Reroute Structure.

Contract CS179: Since March 2015, the contractor's administrative and construction performances continue to slowly improve, although neither is totally acceptable at present. The contractor needs to focus its efforts to bring both areas up to acceptable levels. Concurrently, the contractor needs to clearly understand that its performance will be dependent on successful and timely interfaces with contracts CM006, CM007, CM014B, and CQ033. This dependency will require that the contractor closely coordinate its work efforts and schedules with all of those contractors.

Contracts CH053/54A: As of May 31, 2015, both the CH053 and CH054A contracts are within 3 months of Substantial Completion. The remaining tasks in both contracts are critical, although CH053's renovation of the 12kV Electric Traction feeder system remains the most critical. Earlier in 2015, it appeared that the 12kV work would be completed in May 2015, but that has been delayed by events beyond the contractor's control (i.e. Amtrak's need to re-allocate ESA ET support forces to repair its Hackensack Substation in May 2015). It now appears that the cutover of the 12kV system will be delayed until July 2015 at the earliest. While this is typical of the delays that the CH053 contract has suffered, there is no guarantee that this will be the last delay before Substantial Completion. Notwithstanding the unforeseen Hackensack Substation event, the PMOC does note that ESA reported that the Amtrak force account situation showed some improvement during May 2015 due, in part, to force account scheduling changes and priority setting. However, ESA has recently noted that there is a larger concern about the track outage schedule that is being driven by the extended work at the Moynihan Station project (Manhattan) that often results in ESA not getting the track outages needed to support the work in Harold. . To minimize the possibility of further schedule slippage, the PMOC recommends that the ESA PMT and Amtrak prioritize track outages and sufficient force account resources to complete the remaining work as quickly as possible.

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 has been a major contributor to CH057A's early poor schedule performance. Insufficient Force Account resources very often cause daily priority conflicts among all three contracts. The ESA PMT must do a better job of managing this situation if it intends to mitigate delays to all three. The PMOC recommends that, since CH053 and CH054A are nearing Substantial Completion, the ESA PMT temporarily place greater priority on their resource needs in order for them to achieve Substantial Completion sooner. In that way, CH057A will be the sole ESA contract working in Harold until CH057 and CH061A begin construction. This will enable the CH057A contractor to recover some percentage of its lost schedule time through prudent use of additional

work shifts and/or track outages. The PMOC does note, however that the extended work at the Moynihan Station project (Manhattan), as described above under Contracts CH053/54A, has also affected work on the CH057A contract.

Project Funding: As stated in the Risk Management issue below, the PMOC believes that the timing and availability of funding presents a significant schedule risk to the project. The timing of funding has already 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). The PMOC does note that MTACC is fully aware of this situation and the critical role that funding serves in the successful completion of the project. MTACC continues to work closely with the MTA finance group and keeps the FTA up to date on developments and issues. 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.

Project Budget: ESA did not adequately budget the CM014B package and has used significant cost contingency to cover the contract award amount. This issue may be repeated when the CM007 bid is received at the end of 2Q2015. Because ESA has so far withheld the Draft version of the CM007 Risk Assessment Report, the PMOC cannot offer an opinion on the likelihood of this occurring. The PMOC remains concerned about the adequacy of remaining cost contingency to address major risks detailed in the Risk Management discussion below. The PMOC notes that the project's use of unallocated cost contingency has been significant in recent reporting periods.

Project Schedule: The PMOC remains concerned about the CS179 contractor's ability to effectively manage its work since it required almost a year to develop a viable baseline schedule even with considerable support by the ESA project scheduling group. The CM006 Contract has experienced significant delays and although ESA has approved a recovery schedule from the Contractor, its performance to date has not yet met the revised production targets.

Risk Management: In the PMOC's opinion, funding availability continues to be a significant risk on the ESA project. Funding uncertainty has already resulted in: the PMT's delay of CM007 Contract award until 2015 due to budget constraints; and the restructuring of the CS179 Contract by splitting it into a base contract with seven options, based predominately on access restraints imposed by the CM006; CM007; and CM014B packages, which will significantly increase the construction contract interface risks. This segmentation of construction packages has created multiple inter-contract interfaces and milestones. The probability of successfully achieving all of them is low, 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 due to work site time and access constraints. Managing inter-contract handoffs and interfaces will be challenging and represent significant MTACC-retained risks. 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 Contract which has not yet been awarded. Given that this work is on the project critical path, delays in awarding the options will result in the use of Program schedule contingency.

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.

The PMOC considers the major risks for the Eastside Access Program to be:

- Program Funding;
- Successful execution of dozens of hand-off interfaces across multiple contracts;
- Contractor access and work area coordination in Manhattan;
- Duration of integrated systems testing;
- Continued availability of adequate Amtrak and LIRR force account resources;
- Continued availability of required track outages in the Harold Interlocking.

The PMOC notes that MTACC has actively engaged Amtrak to develop some specific mitigations and continues to work on strategies for mitigating many of the identified risks. But many external stakeholder issues with Amtrak and LIRR will remain beyond MTACC's direct control and this is likely to complicate problem resolution essential to completion of the project.

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
CBB	Current Baseline Budget
CCC	Change Control Committee
CCM	Consultant Construction Manager
CCU	Code Compliance Unit
CM	ESA Construction Manager assigned to each contract
CMP	Cost Management Plan
CMU	Concrete Masonry Unit
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
EAC	Estimate AT Completion
EBRR	East Bound Re-Route
EIS	Environmental Impact Statement
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
MOD	Contract Modifications
MOU	Memorandum of Understanding
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
NYS	New York State
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	11,214.0	100.00%	6,207.8	55.4%
Financing Cost	\$1,036	14.00%	\$617	1,036.0	9.24%	617.6	59.6%
Total Project Cost	\$6,350*	86.00%	\$4,107	10,178.0	90.76%	5,590.2	54.9%
Federal Share	\$2,683	36.30%	\$1,148	2,699.0	24.07%	1,993.7	73.9%
5309 New Starts share	\$2,632	35.60%	\$1,098	2,436.6	21.73%	1,731.6	71.1%
Non New Starts grants	\$51	0.70%	\$50	67.0	0.60%	66.7	99.6%
ARRA	0	0.00%	0	195.4	1.74%	195.4	100.0%
Local Share	\$3,667	49.60%	\$2,959	7,479.0	66.69%	3,596.5	48.1%

Table 3: Project Budget and Invoices as of April 30, 2015

Elements	Baseline Total Budget (June 2014)	Current Baseline Budget (Apr 2015)	Actual Awards (Apr 2015)	Paid to Date (Apr 2015)	Actual % Budget Paid
Construction	\$7,379,296,706	\$7,463,883,775	\$5,408,756,281	\$4,015,956,077	53.81%
Soft Costs Subtotal	\$2,798,474,304	\$2,713,887,235	\$1,638,654,278	\$1,574,234,363	58.01%
Engineering	\$720,615,810	\$720,615,810	\$657,458,121	\$639,940,041	88.80%
OCIP	\$282,613,620	\$282,613,620	\$206,370,653	\$185,325,067	65.58%
Project Mgmt.	\$972,168,644	\$972,168,644	\$658,935,545	\$634,719,172	65.29%
Real Estate	\$182,076,230	\$182,076,230	\$115,889,959	\$114,250,083	62.75%
Rolling Stock	\$202,000,000	\$202,000,000	\$0	\$0	0.00%
██████████	██████████	██████████	█	█	██████
Project subtotal w/o Financing & RI	\$10,177,771,010	\$10,177,771,010	\$7,047,410,559	\$5,590,190,440	54.93%

Note: ESA is currently carrying the Rolling Stock Reserve as an off-line cost, not in the Budget.

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 \$)	Mar 2015 SSC (YOE \$) M	Apr 2015 SSC (YOE \$) M	Apr 2015 % of Re-Plan	Mar '14 to Apr '15 Change \$M	CBB Variance from FFGA %
10	1,989	3,405	3,413	3,417	100.35%	4	71.79%
20	1,169	2,238	2,338	2,341	104.60%	3	100.26%
30	356	474	474	474	100.00%	0	33.15%
40	205	611	607	608	99.51%	1	196.59%
50	619	606	577	579	95.54%	2	-6.46%
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	100.00%	0	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%	0	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 Code 10 - \$5.0 million decrease to delete Special Inspection CSU97. \$1.1 million increase due to Tunnel A Fire Standpipe to CQ032. \$9.1 million increase to fund Woodside Pole Line. \$1.2 million decrease due to issue changes that affect contingency.

SCC Code 20 - \$1.6 million increase due to CM014A acceleration. \$1.4 million increase due to issue changes that affect contingency.

SCC Code 50 - \$3.4 million increase to fund Woodside Pole Line. \$1.4 million decrease due to issue changes that affect contingency.



Table 5: ESA Planned Cash Flow Chart of 11/2014

a/o 3/31/15

aoQuarter/year	Construction S(000)	Engineering S(000)	OCIP S(000)	Project Mgmt. S(000)	Real Estate S(000)	Rolling Stock S(000)
Paid To Date	3,660,194,771	646,377,892	155,604,955	580,041,291	112,634,547	0
Remaining	3,719,144,273	74,237,918	127,008,665	392,127,353	69,441,683	202,000,000
3Q2014	209,340,620	-3,311,163	4,774,951	16,667,454	0	0
4Q2014	168,280,817	-3,290,689	4,774,951	16,667,454	75,948	0
1Q2015	134,568,200	-3,183,384	4,619,246	16,123,950	4,506,241	0
Remaining Planned	3,206,954,636	84,023,154	112,839,518	342,668,494	64,859,494	202,000,000
Remaining Actual	3,283,624,272	77,581,669	97,288,553	336,910,027	67,826,147	202,000,000
2Q2015	147,357,357	-3,290,689	4,774,951	16,667,454	4,658,137	0
3Q2015	169,688,509	-3,290,689	4,774,951	16,667,454	4,658,137	0
4Q2015	201,239,698	-3,290,689	4,774,951	16,667,454	4,658,137	0
1Q2016	193,275,933	-3,219,153	4,671,147	16,305,118	4,556,873	0
2Q2016	180,854,738	-3,290,689	4,774,951	16,667,454	4,658,137	8,666,545
3Q2016	181,988,455	-1,983,850	4,774,951	16,652,320	4,658,137	13,070,855
4Q2016	214,173,807	6,728,414	4,774,951	15,971,281	4,658,137	13,070,855
1Q2017	210,556,624	6,509,009	4,619,246	15,450,479	4,506,241	12,644,631
2Q2017	199,737,103	6,728,414	0	15,971,281	4,658,137	13,070,855
3Q2017	189,382,506	6,728,414	4,774,951	15,971,281	4,658,137	13,070,855
4Q2017	182,084,699	0	4,774,951	15,971,281	4,658,137	13,070,855
1Q2018	174,210,593	6,509,009	4,619,246	15,450,479	4,506,241	12,644,631
2Q2018	170,524,739	6,728,414	4,774,951	15,971,281	4,658,137	13,070,855
3Q2018	168,497,619	6,728,414	4,774,951	15,971,281	4,658,137	14,014,767
4Q2018	155,245,094	6,728,414	4,774,951	15,971,281	50,632	14,014,767
1Q2019	148,441,548	6,509,009	4,619,246	15,450,479	0	13,557,764
2Q2019	110,893,994	6,728,414	4,774,951	15,971,281	0	14,014,767
3Q2019	93,559,944	6,728,414	4,774,951	15,971,281	0	14,014,767
4Q2019	71,649,848	6,728,414	4,774,951	15,971,281	0	14,014,767
1Q2020	20,704,406	6,582,144	4,671,147	15,624,080	0	5,043,553
2Q2020	11,682,057	6,728,414	4,774,951	15,971,281	0	943,912
3Q2020	7,573,078	2,267,183	4,947,825	5,381,627	0	0
4Q2020	2,750,374	0	5,035,679	0	0	0
1Q2021	881,913	0	3,256,771	0	0	0
2Q2021	0	0	0	0	0	0
3Q2021	0	0	0	0	0	0
4Q2021	0	0	0	0	0	0
Subtotal	3,719,144,273	74,237,918	127,008,665	392,127,353	69,441,683	202,000,000

**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 (1Q15)	Paid To Date (1Q15)
10- Guideway & Track Elements	\$1,513,998	\$2,943,165	\$3,405,463	\$2,697,250	\$1,925,509
20- Stations, Stops, Terminals, Intermodal	\$1,168,655	\$1,513,998	\$2,238,235	\$1,620,652	\$1,116,025
30- Support Facilities, Yards, Shops, Admin Buildings	\$356,264	\$384,583	\$474,177	\$209,748	\$201,718
40- Site Works and Special Conditions	\$205,105	\$491,341	\$610,570	\$421,929	\$415,976
50- Systems	\$619,343	\$698,296	\$605,592	\$404,496	\$269,361
60-ROW, Land, Existing Improvements	\$165,280	\$203,639	\$219,397	\$153,211	\$151,571
70- Vehicles	\$493,982	\$674,372	\$209,938	\$7,838	\$5,549
80- Professional Services	\$1,184,000	\$1,648,606	\$1,975,398	\$1,517,531	\$1,448,907
Sub-Total	\$6,349,900	\$8,708,000	\$10,177,771	\$7,033,154	\$5,534,618
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	\$7,650,761	\$6,152,225

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	56.5		
	Based on Earned Value ±	0.53 (PMOC Calculation based on MTACC-Supplied cost information)		
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 now due on June 2, 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 full re-sequencing of the Harold work and restructuring of the CM007 package.	CM006 has experienced significant delays and has yet to meet the approved recovery schedule production targets. The PMOC is also concerned about the ability of the CS179 Contractor to manage this key Contract that is complex and on the critical path based on the difficulties he had preparing the baseline schedule.		
Harold Re-planning	The Harold baseline schedule that formed the basis of the Program schedule presented to the CPOC in June 2014 is no longer valid. Based on current issues with slow progress and inadequate force account support, ESA completed a Harold schedule re-sequencing in December 2014, also known as “ESA First,” that advances work elements required for the new LIRR service to GCT and pushes back the FRA funded High Speed Rail Work beyond 2017.	Work on the Harold Interlocking is subject to influences outside of the control of ESA. The FRA and Amtrak need to accept the most recent Harold re-sequencing plan completed in December 2014. Should issues with the level of Amtrak force account support return, this could further delay the Harold Interlocking work.		

* 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. This is currently being re-evaluated.