

COMPREHENSIVE MONTHLY REPORT

February 2013

**Dulles Corridor Metrorail Project
Extension to Wiehle Avenue**
Metropolitan Washington Airports Authority
Washington, DC

March 29, 2013

PMOC Contract Number: DTFT60-09-D-00016

Task Order Number: 002, **Project Number:** DC-27-5142, **Work Order No.** 03

OPs Referenced: 01, 25

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Length of Time PMOC Assigned to Project: 12.0 years

Length of Time PMOC Lead Assigned to Project: 5.0 years

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EXECUTIVE SUMMARY

The Project Management Oversight Contractor (PMOC) met with Metropolitan Washington Airports Authority (MWAA) on *March 7, 2013* to conduct a monthly progress meeting for work performed in *February 2013*. The full time on-site PMOC representative attended various project meetings and site tours throughout this reporting period. Additional information for this report was obtained from MWAA during the first and second weeks of *March 2013*. Future PMOC monthly progress meetings are planned to occur during the first week of each month.

1. Project Description

MWAA, in cooperation with the Washington Metropolitan Area Transit Authority (WMATA), proposes to implement a 23.1-mile rapid transit system in the Dulles Corridor of Northern Virginia. The proposed corridor follows the alignment of the Dulles International Airport Access Highway (DIAAH) and the Dulles Toll Road within Fairfax County, and the Dulles Greenway, a private toll road in Loudoun County. The Project (Initial Operating Segment) undertakes the construction of the initial 11.7-miles of the rail project from the existing Metrorail Orange Line just east of the West Falls Church (WFC) Station to a station to be constructed at Wiehle Avenue with a total project cost of \$3.142 billion. Included in the Project are five new stations (Tysons East, Tysons Central 123, Tysons Central 7, Tysons West and Wiehle Avenue), improvements to the existing yard at WFC, and tail tracks beyond the Wiehle Avenue station. The procurement of sixty-four new rail cars is also included in the Project. Based on the Full Funding Grant Agreement (FFGA), the Revenue Service Date (RSD) is December 1, 2014. The Federal New Starts share is \$900 million, along with \$75 million in Surface Transportation Program (STP) funds, for the extension to Wiehle Avenue. Through Federal fiscal year (FY) 2012, Congress has appropriated \$611,114,364 in Section 5309 New Starts funds for the Project. The FTA has awarded \$520,282,364 in Section 5309 New Starts and \$75,000,000 in STP funds to date for the Project.

2. Project Status Summary

The FTA and PMOC met with MWAA on *March 7, 2013* to conduct a monthly progress review meeting and supplemental information was obtained from MWAA during the following weeks. The status of information is as of *February 28, 2013*, unless otherwise noted.

- **Real estate acquisition** continues to keep ahead of construction requirements, often resorting to rights-of-entry (ROE) to gain access to required parcels. Of the 104 parcel packages required, 99 have been acquired.
- **Rail car Procurement** - Monthly Progress Review Meeting No. 30 between WMATA and Kawasaki on the 7000 Series railcars was held on *March 14, 2013 at the Jackson Graham Building* and the WMATA/PMOC 7K Rail Car Update Meeting was held on *March 19, 2013 at WMATA headquarters*. The Final Design Review (FDR) was *closed* February 28, 2013 a slippage of 343 calendar days. The completion of the Design Validation Review (DVR) also *occurred* on that date. *WMATA personnel left for Japan on Monday, February 18, 2013 for meetings and further DVRs. Design qualification testing (DQT) continues for components and subsystems. KHI production of prototype cars continues in Japan. DVR for the "A" and "B" cars was completed on February 27,*

2013. *KMM production of pilot cars continues. The DVR for the first carshells was completed on February 28, 2013.*

On October 20, 2011, WMATA approved Kawasaki’s Master Program Schedule (Baseline). WMATA subsequently approved Kawasaki’s Mitigation Schedule, due to the March 2011 tsunami/earthquake, on December 21, 2011; it has a June 12, 2015 conditional acceptance date for the 64th railcar, which is more than six months beyond the FFGA’s Revenue Service Date (RSD). MWAA informed the FTA’s Region III Administrator of the delay by letter on January 31, 2012. The delivery of the first four production cars is forecasted to be February 20, 2014, and the conditional acceptance of the first four production cars is forecasted to be August 14, 2014.

- **Design progress** – MWAA reported that as of the end of February 2013, all required permit applications have been submitted and approved.
- **Alstom Generation 4 Track Circuits** - MWAA issued a NTP on January 24, 2011 to an independent third-party consultant, Battelle, to review Alstom’s safety analysis of their Generation 4 track circuit modules proposed for use on the Dulles Extension. MWAA received the Final Battelle Report on November 16, 2012. WMATA provided a letter dated November 19, 2012 stating that “the Alstom Generation 4 track circuit is accepted for service provided the system fulfills the requirements of Project specifications section 16919 – ATC System Reliability, Availability, Maintainability and Safety Program”.
- **Construction progress** is broken into two components: utility relocation (UR), which is now considered to be 100% with the installation completion of new distribution pipe near TPSS #10 by Washington Gas, and design-build (DB) construction, which is approximately 88% complete. Significant accomplishments in February included continued finalizing of ballasted and direct fixation trackwork installation in the NATM tunnels, on the Tysons West Guideway and along the DIAAH; continued progress with the testing of Traction Power Substations and installation of Communications Systems and static testing of the Automatic Train Control systems. The Project also continued to make progress on the K-Line tie-in ATC testing.

CONSTRUCTION PROGRESS THROUGH February 2013			
GUIDEWAYS/ TRACKWAYS and SYSTEMS	% COMPLETE	STATIONS	% COMPLETE
O-3 (DCR) Trackway	100%	Tysons East	72%
Tysons East Guideway	100%	Tysons Central 123	65%
Tysons West Guideway	100%	Tysons Central 7	53%
O-9 (DIAAH) Trackway	100%	Tysons West	52%
Systems	45%	Wiehle Avenue	82%
Trackwork	98%	WFCY	26%

- **The DTP Schedule Update** with a data date of January 25, 2013 “Mitigation Schedule” again showed a -7 calendar day variance with a September 6, 2013 SSCD. The current forecast RSD is January 10, 2014.

- **With regard to the West Falls Church Yard (WFCY) completion date**, DTP's schedule update of *January 25, 2013* reflected a -28 calendar day variance to the targeted completion date of December 20, 2013, resulting in a forecast completion date of *January 18, 2014*.
- **Budget** status as of *January 25, 2013* indicates that \$2,335,630,091 (83%, excluding the remaining contingency and finance charges) has been expended of the \$3,142,471,635 budget total. MWAA reported that it achieved Phase 9 and has now moved into the Phase 10 and reports \$356,416,703 of the available contingency for the first *ten* contingency milestones have been drawn down to date with a balance of \$5,383,297 available through the *tenth* contingency phase. The current estimate of the contingency available at the end of construction is \$13.16M. MWAA's transfer of the \$40.4 million value of CNPAs will bring the contingency available at the completion of construction to \$53.56 million. In the PMOC's opinion, the contingency is adequate. The federal portion of the Allowance Items recommended for award and yet to be transferred to the Firm Fixed Price is estimated to be \$18.28 million over budget. With the completion of the award of all contracts for Allowance Items, \$39.92M of the original FFGA amount of \$77.47M budgeted for Indexed Commodity Escalation has been transferred to the Firm Fixed Price. During October 2012, the project re-assessed the commodity escalation estimate at completion (EAC) and transferred the under-run of \$19.0 million to contingency.
- MWAA's estimate of the **Earned Value** for the Project through *January* is 88.1%.
- **Risk** - MWAA submitted RCMP Rev. 3 to the FTA for approval by letter dated March 28, 2012. The FTA approved the RCMP on April 13, 2012. In June 2012, MWAA updated the Risk Register. This document and a recommendation to update the Top Ten Risks were forwarded to the FTA and the PMOC for review on August 2012. FTA, the PMOC and MWAA discussed this issue during the PMOC's September monthly site visit. The PMOC provided review comments and a modified Top Ten List that will be reviewed by MWAA. On September 30, 2012, MWAA issued a revised list of Top Ten Risks. FTA's letter of November 29, 2012 approved the September 30 revised Top Ten Risks. These risks will now be reviewed on a quarterly basis. A revised list of Top Ten Risks dated December 2012 was submitted to the FTA via letter dated January 22, 2013. *The PMOC submitted its comments on the proposed revised risks to MWAA on February 22, 2013 and the comments were discussed at the March 7, 2013 update meeting. MWAA will revise the proposed top ten risks and resubmit them.*
- **The Full Time Equivalent (FTE) estimated total for February is 1,170 which is a decrease of 67 from the January actual of 1,237.** A fluctuation is to be expected with the winding down of design and civil construction, the ramping up of systems installation and testing and winter weather. However, MWAA, FTA and the PMOC are questioning what may be a premature decline in FTEs.

- **Core Accountability Items**

FFGA-MWAA Core Accountability Items			
Project Status:		Original at FFGA:	Current Estimate*:
Cost	Cost Estimate	\$3.142B	\$3.142B
Contingency	Unallocated Contingency		
	Total Contingency (Allocated plus Unallocated)	\$297.76M	\$13.16M
Schedule	Revenue Service Date	December 1, 2014	January 10, 2014***
Total Project Percent Complete		Based on Expenditures**	83%
		Based on Earned Value	88.10%
Major Issue	Status	Comments/Action/Planned Action	
Concurrent Non-Project Activities (CNPA) -- Project Partners have added activities to the Project that may not be part of the FFGA-funded scope of work.	The FTA identified \$36.7 million of CNPAs in its November 6, 2012 letter to MWAA. MWAA's letter of November 28, 2012 corrected the total to \$40.38M.	MWAA will provide FTA details of how they will address budget and drawdown adjustments for the identified CNPAs.	
Contingency -- Overall Project Contingency level may be insufficient.	MWAA acknowledges a \$71.8 million in available Finance Charges savings that could be added to the contingency. MWAA completed the review of "Indexed Commodity Escalation" charges and identified approximately \$19 million in savings.	The \$71.8 million savings in Finance Charges was incorporated into the 2013 MWAA Budget on December 12, 2012 and added to Project contingency. The transfer of the \$19 million savings in "Indexed Commodity Escalation" did not require Board action and was transferred to contingency. <i>Removal of the \$40.4 million in CNPAs will augment remaining contingency.</i>	
Date of Next Quarterly Meeting:		<i>May 22, 2013</i>	

Note: * Through January 2013

** Excluding remaining contingency and finance charges

*** Contingent upon WFCY not needing to be complete

3. PMOC's Assessment of Project Status

In its monthly report for June 2011, the PMOC concluded that MWAA needed to replenish the Project contingency and actively pursue items that may be additional scope (non-FFGA) and billed to the responsible parties in order to address potential budget overruns caused in part by scope of work issues. The FTA/PMOC and MWAA met on September 6 to discuss MWAA's August 10 re-tabulation of the list of potential Concurrent Non-Project Activities (CNPAs). The items that are not part of the FFGA Project scope could provide a source of funds to replenish the Project Contingency. The FTA identified \$36.7 million of CNPAs in its November 6, 2012 letter to MWAA. MWAA provided a response on November 28, 2012 acknowledging the FTA letter and identifying an additional \$3.7 million to increase the value of the CNPAs to \$40.38 million. MWAA is preparing the documentation to demonstrate the refund of any previous drawdowns of federal funds to pay for these expenses.

Through *January 2013*, MWAA has utilized \$359,416,703 resulting in a remaining balance of \$5.38 million through contingency *Phase 10*. With \$18,988,157 in obligated contingency, this leaves a balance of \$7.77 million for *Phases 11* through *12* and a grand total balance, as of the end of *January 2013*, of \$13.16 million in contingency estimated to remain at project completion. *The removal of the \$40.4 million in CNPAs from the federal portion of the Project will improve the estimate of contingency remaining at the completion of construction to \$53.56 million. In the opinion of the PMOC, the Project has adequate contingency.*

The Project continues working according to an agreed "Mitigation Schedule", authorized by MWAA's November 1, 2011 Directive Letter. The mitigation schedule with a data date of *January 25, 2013* again reflected a -7 calendar variance to the contract schedule reflecting an SSCD of September 6, 2013.

DTP has incorporated the West Falls Church Yard construction into the mitigation schedule with a *target* completion date of December 20, 2013. DTP's *January 25, 2013* schedule update reflected a -28 calendar day variance to the targeted completion date of December 20, 2013, *resulting in a forecast completion date of January 18, 2014*. It remains the PMOC's opinion that the Project will be in revenue service within the FFGA specified date of December 1, 2014.

Kawasaki's Mitigation Schedule based on the impacts of the March 2011 tsunami/earthquake forecasts a conditional acceptance date of the 64th DCMP rail cars on June 12, 2015. Final Design Reviews (FDR) continue to lag, but in order to mitigate the delay in FDR completion, Kawasaki and WMATA have undertaken design validation reviews and Kawasaki is manufacturing the prototype cars at risk in Japan. *The Final Design Review (FDR) was closed February 28, 2013, a slippage of 343 calendar days. The completion of the Design Validation Review (DVR) also occurred on that date.*

MAIN REPORT

1. Grantee's Capabilities and Approach

a. Technical Capacity and Capability

The PMOC prepared a Spot Report of Grantee Technical Capacity and Capability dated January 10, 2008 as part of the PMOC's effort to evaluate the Grantee's readiness to enter Final Design. The conclusion was that the MWAA project staff assigned to the Project was qualified. However, the MWAA direct staff was very thin with many project responsibilities assigned to MWAA's consultant team, Project Management Support Services (PMSS) team. The PMOC recommended that the Grantee add several staff positions and that reporting protocols be enhanced to ensure important project status information is shared in a timely manner with the Federal Transit Administration (FTA) and the PMOC. MWAA has adopted the recommendations and augmented their staff.

In September 2009, MWAA reorganized by implementing an integrated project management organization consisting of MWAA and PMSS staff. However, the personnel involved remained the same as was evaluated in the January 2008 Technical Capacity and Capability Report with a few replacements and additions. It remains the PMOC's opinion that the staffing levels and technical capabilities are still adequate. MWAA hired Mr. William Kerrigan as Manager of Project QA/QC and Safety, replacing Jon Christensen, who retired. PMSS also hired Mr. Leo Himmel to serve as the Project's Team Systems Testing Coordinator. In addition, MWAA has been reorganizing staff members into a new Testing and Start-up Group. MWAA has submitted a draft PMP, Version 8.0 to include the Testing and Commissioning stages of the project. The FTA transmitted comments to MWAA on July 11, 2012 requesting the final PMP by November 1, 2012. PMP Version 8.0 was transmitted to the FTA on November 8, 2012. The PMOC reviewed this submission and found it acceptable with the exception of the inclusion of draft organization charts, Figures 2-4 and 2-5. FTA's email of January 4, 2013 requested the updated organization charts, which MWAA submitted on January 23, 2013. The FTA's letter of January 25, 2013 approved PMP Version 8.0 Final.

Upon completion of the project, WMATA will become the operator of this extension to their system. WMATA personnel have been active participants in the project. The addition of WMATA personnel, particularly the Director of the Dulles Corridor Metrorail Project, has significantly improved the coordination between DTP, MWAA and WMATA with regard to scheduling outages and work. Over the past year, WMATA's Dulles Project Director has been staffing a Quality Assurance and Inspection Staff to keep pace with Project progress as it enters the Testing and Start-up Phase. In anticipation of the testing and commissioning of the Project, WMATA has hired a start-up technical advisor who has previous experience with WMATA.

b. Project Controls

MWAA has procedures in place with regard to monitoring and controlling project scope, quality, schedule, cost, risk, and safety. It is the PMOC's observation that MWAA continues to monitor and control the project in accordance with their procedures.

- The Project Schedule was updated by DTP through *January 2013*. In this update, DTP *again* reported a possible loss of seven calendar days to the SSCD forecasted by DTP to occur on September 6, 2013. The WFCY schedule update reflected a -28 calendar day variance to the target date of December 20, 2013. However, the WFCY activities and completion dates are only overlaid on the master mainline schedule but not connected to the mainline critical path or SSCD. MWAA completed its schedule review of the schedule update with a data date of *January 25, 2013* on *February 26, 2013* stating the schedule was “not accepted.” See Section 4.a for additional information.
- MWAA continues to monitor expenditures to date and to update the estimate at completion. In July 2012, MWAA allocated \$71.8 million in finance cost savings to contingency budget. In October 2012, MWAA identified \$19.0 million in forecast under-run commodity escalation that was transferred to the contingency budget. *MWAA reported during the March 7, 2013 meeting that it had completed Phase 9 and has moved into Phase 10 monies.* Through *January 2013*, MWAA has utilized \$359,416,703 resulting in a remaining balance of \$5.38 million through contingency *Phase 10*. With \$18,988,157 in obligated contingency, this leaves a balance of \$7.77 million for *Phases 11* through *12* and a grand total balance, as of the end of *January 2013*, of \$13.16 million in contingency estimated to remain at project completion. *The removal of the \$40.4 million in CNPAs from the federal portion of the Project will improve the estimate of contingency remaining at the completion of construction to \$53.56 million. In the opinion of the PMOC, the Project has adequate contingency.*
- MWAA submitted the latest revision of the RCMP (Revision 3) to the FTA on March 28, 2012 and FTA letter of April 13, 2012 found it acceptable. For details, see section 3 “Project Management Plan and Sub-plans” below.
- The Quality Assurance (QA)/Safety group maintains an active schedule of audits and surveillances and accident data.

Through *February 2013*, there has been a cumulative total of *12,332,320* hours worked with six lost time *cases*.

DTP submitted the Safety and Security Certifiable Items List (SCIL) Revision 6 to include the WFCY on August 6, 2012. Comments were received from WMATA on September 21, 2012. MWAA completed its review and issued Letter No. 07547 dated October 24, 2012 identifying comments needing to be addressed. DTP responded by letter on November 30, 2012 and MWAA and DTP met on December 18, 2012 to discuss the open comments further. DTP subsequently resubmitted the SCIL Revision 6, which was approved “as noted” on February 5, 2013.

DTP submitted revisions to the System Safety/Security Management Plan (SSMP) and DTP Procedures PPQ 01.06.02, Development and Maintenance of the Safety/Security Certifiable Items List, and PPQ 01.06.03, Design Conformance Certification, which MWAA accepted on December 6, 2010. The FTA and PMOC met with MWAA, WMATA, and DTP on April 29, 2011 and again on January 27, 2012 to discuss development and status of a revised SSMP to integrate WMATA and MWAA systems testing, interface management and pre-revenue

operations. SSMP Revision 9 was completed in March 2012 and MWAA and WMATA approved the revised SSMP on March 20 and 22, 2012, respectively. The PMOC reviewed the completed revision and provided comments to the FTA on April 5, 2012. The FTA accepted SSMP, Rev.9 dated March 2012 on April 13, 2012.

c. Compliance

It is the PMOC's observation that MWAA continues to follow the required statutes, regulations and agreements.

MWAA submitted updates to the Amended Record of Decision Summary Mitigation Report to the FTA for the fourth quarter of 2012 on January 30, 2013.

2. Project Scope

a. Design Status

MWAA reported on March 7, 2013 that as of the end of February 2013, all required permit applications have been submitted and approved.

Regarding Automatic Train Control, MWAA issued a NTP on January 24, 2011 to an independent third-party consultant, Battelle, to review Alstom's safety analysis of their Generation 4 track circuit modules proposed for use on the Dulles Extension. MWAA received the Final Battelle Report on November 16, 2012. WMATA provided a letter dated November 19, 2012 stating that "the Alstom Generation 4 track circuit is accepted for service provided the system fulfills the requirements of Project specifications section 16919 – ATC System Reliability, Availability, Maintainability and Safety Program". MWAA wrote Letter No. 07687 dated November 30, 2012 to DTP stating that "As a condition of acceptance, WMATA has requested copies of the documents reviewed by Battelle. The list of documents is attached. DTP is requested to provide copies of these documents, in electronic format, to the Airports Authority." Battelle and DTP gathered and submitted the requested documents to MWAA and WMATA on January 14, 2013. MWAA wrote Letter No. 07877 dated January 23, 2013 to WMATA stating "with the provision of the aforementioned documents to WMATA, the Airports Authority considers all of the tasks related to the Independent Review and Assessment of Alstom's Generation 4 Safety Analysis by Battelle to be complete."

b. Bidding and Construction Status

DTP has awarded all of the thirty-seven Allowance subcontract packages. Through *January 2013*, MWAA has transferred \$545,086,712 worth of the \$374,517,062 federally funded Allowance Items Budget with an overrun of \$145,299,672 to the firm fixed price contract. In addition, MWAA has Allowance Items recommended for Award, but not yet transferred to the firm fixed price contract, worth \$18.28 million, which is an additional \$13.03 million over budget. The \$13.03 million does not include Installation of Public Art (C7) and Spare Parts (C11), since these are being procured outside the Allowance Items.

MWAA reported during this March 7, 2013 monthly meeting that utility relocation is now considered to be 100% complete, and DB construction is approximately 89% complete.

The following are the major accomplishments of the DB contractor during February 2013:

- **Operations Areas OP-1, OP-2 and OP-3 (I-66/DCR/Laydown Area 1)**

Continued rebar and concrete construction of the West Falls Church Yard (WFCY) Service and Inspection (S&I) Building foundation basement walls and pile caps; completed micro-pile installation for the Sound Cover Box (SCB) foundation in the WFCY; continued rebar and concrete construction for the SCB foundation along the outer loop track; Powell continued installation and checkout testing inside the TPSS facility at the WFCY; completed welding WFCY rail strings; and completed installing track turnouts and started installing cross ties and rail at the west end of the ladder track area.

Systems Work

- **K-Line Track Outage**

Performed K98/K06 track circuit conversions to allow Alstom ATC testing; performed control line testing at the double crossover during the full outage on February 23 and 24; performed safe braking testing on the K/N line turnouts during week nights' non-revenue week of February 25.

- **TPSS #1 (Plainfield St. – N91)**

Continued pulling track N3 negative return traction power cables and RTS cables in the N3 track cable troughs; continued mandreling and installing pull tapes and for track N3 and pulling traction power jumper cables; continued trackside punchlist work; and repositioning/correcting the location of chain marker signs.

- **Plainfield TCR and N91 Area of Control**

Installing longer masts for Signals #28, #32 and #34; hand digging ballast and installing brackets for WZ-19 and WZ-20 (N3); and installing switch lights for switch machine #5B.

- **TBS #2 (Baldwin Drive – N92)**

Installing rack and panel grounding wires; and labeling conduits and junction boxes.

- **Baldwin TCR and N92 Area of Control**

Verifying proper equipment installation in the TCR; and continued core drilling and saw cutting cable trough cover for conduit penetrations.

- **Operations Area OP-4/5A (Tysons East Guideway and Tysons East Station)**

In the station - installing control cables and equipment for station and pavilion elevators; installing wiring across the pedestrian bridge to the pavilion; installing pavilion escalators and wiring equipment in the elevator machine room; and installing wire and light fixtures throughout the station, pedestrian bridge and pavilion.

Systems Work

- **TBS #3 (Tysons East – N01)**
Grounded electrical panels; replaced undersized factory installed ground wires; and verified traction power cable ID tags in the vault and installed additional tags in the breaker cabinets.
- **TPSS #3 (Tysons East Station – N01)**
Continued installing conduit ID tags in manholes; and continued grounding electrical manhole rings and covers.
- **Operations Area OP-5 (Tysons Central 123 Station)**
Continued installing elevators and escalators; installing communications systems conduits; installing equipment, devices and raceways in the AC SWGR Room, TPSS #4, and battery room; installing mezzanine level suspended ceiling hangers; installing ductwork and vents in the platform level elevator machine room; painting, detailing and welding canopy steel; installed pedestrian bridge span #3; installing doors and hardware; installing suspended ceiling at the platform and ceiling hangers for the pedestrian bridge; installing fire suppression piping; and installing conduit under the pedestrian bridge trusses.

Systems Work

- **TPSS #4/TCR (Tysons 123 – N02)**
Strapping ETS cables to the IB and OB tunnel walls; installing IB and OB ETS panels and recessed station ETS panels; installing FIA wiring; installing blue and amber lights at the IB and OB ETS locations; and pulled and terminated fan controls wires.
- **Tysons 123 TCR and N02 Area of Control**
Installed WZ-17 at IB 714+50; installing ID plates on ATC junction boxes; installing IB and OB trackside train approach warning strobe lights and horns and strapping cables to tunnel walls; and adjusting track switch machine.
- **Operations Area OP-6 (Laydown Area #6/NATM) Tunnel/East Cut & Cover and Ventilation Structure)**
Strapping ETS cables; strapping train approach warning strobe light; installing tunnel exit signs; installing continuity jumper cables on dry standpipes; installing blue and amber ETS lights and wiring; adjusting track switch machines; installing conduit for emergency lighting; continued structural steel support frame installation for vent structure louvers; and pulling damper and louver motor wires.
- **Operations Area OP-6 (West Cut and Cover Tunnel)**
Strapping ETS cables; performing ATC impedance bond testing; terminating programmable logic controller wiring; completed installing and terminating damper control and actuator wires; installing dry stand piping; installing ETS boxes and blue and amber lights; and installing CCTV wiring.

- **Operations Area OP-7 (Tysons Central 7 Station)**

Installing raceways, fixtures and devices for the Air Conditioning (AC) and Communications Systems in the AC SWGR room, service rooms, under platform, in the TPSS #5, elevators, pedestrian bridges and in the pavilions; installing escalators and elevators in the pavilions; installing doors and hardware; installing electrical raceways and cables for the pavilions; installing platform suspended ceiling panels; installing fireproof sealant in various openings around conduit and at CMU wall gaps; installing electrical cables in the pavilions; installing platform level metal roofing; installing pavilion canopy steel; repairing damaged waterproofing along the exterior walls for TPSS #5; and installing HVAC systems in both pavilions.

Systems Work

- **TPSS #5 (Tysons Central 7 Station-N03)**

Installing heat tape fuse box disconnects; pulling and terminating ETS cables at recessed station ETS boxes; pulling trackside heater control cables; continued installing trough covers on the aerial raceway; and pulling heater cables.

- **Tysons Central 7 TCR and N03 Area of Control**

Installed ATC WZ-bonds and marker coils; installing and terminating train warning strobe lights; terminating ATC cables in the entry racks; and terminating and labeling fiber optic cables in the communications equipment room.

- **Operations Area OP-8 (Tysons West Station/Guideway)**

Grading the retention pond within the median of Route 7 between the DTR and Gosnell Road; in the station – installing communications conduits and wiring; installing electrical raceway and light fixtures; hanging piping for the fire suppression system; installing platform canopy roofing; installing curtain glass walls; installing platform and mezzanine ceiling supports; installing stair hand railing; installing pavilion canopy steel and roof decks; and installing north pavilion elevators.

Systems Work

- **TPSS #6 (Tysons West Station –N04)**

Continued pulling traction power jumper cables; installing contact rail heat tape; and installing ETS transition box in the AC Switchgear Room; and terminating ATC WZ-bond cables.

- **Tysons West TCR and N04 Area of Control**

Continued terminating and labeling ATC cables in the TCR entry rack; continued mounting IB trackside ATC junction boxes; terminating ATC cables in trackside junction boxes; splicing and terminating fiber optic cables in the communications room.

- **OP-9 (DIAAH)**

Continued track punch list work between Hunter Mill Road and Difficult Run; and completed pouring of the barrier wall at the Wiehle Avenue off ramp from the eastbound DTR.

Systems Work

- **TPSS #7 (Wolf Trap – N05)**
Continued terminating cables in the ETS power transition boxes and grounding ETS frames; continued installing conduit ID tags in manholes and grounding manholes rings and covers; bonding floating neutral and ground transformer wires; and verifying ETS relay cabinet functionality.
- **Wolf Trap TCR and N05 Area of Control**
Continued installing duct seal in ATC cabinets and fence grounding openings.
- **TPSS #8 (Chatham's Ford – N93)**
Continued terminating heat tape fuse box disconnects and making rail connections; continued installing heat tape on contact rail; bonding floating neutral and ground transformer wires; verifying ETS relay cabinet functionality; and programming the RTU and Network Cabinet in preparation for SCADA testing.
- **Chatham's Ford TCR and N93 Area of Control**
Continued installing duct seal in ATC cabinets and fence grounding openings; and core drilling and saw cutting cable trough covers for ETS and Heater Control conduit penetrations.
- **TPSS #9 (Hunter Mill – N94)**
Continued grounding fence posts; and bonding floating neutral and ground transformer wires.
- **Hunter Mill TCR and N94 Area of Control**
Continued installing duct seal in ATC cabinets and fence grounding openings; and core drilling and saw cutting cable trough covers for ETS and Heater Control conduit penetrations.
- **TPSS #10 (Sunset Hills – N95)**
Continued terminating heat tape fuse box disconnects and making rail connections.
- **Sunset Hills TCR and N95 Area of Control**
Continued core drilling and saw cutting cable trough covers for ETS and Heater Control conduit penetrations.
- **TPSS #11 (Wiehle Avenue – N06)**
Verifying cables and pushbuttons in the ETS cabinets; terminating heat tape fuse box disconnects and making rail connections; verifying and labeling heater control wiring; and completed installing equipment in the network cabinet.
- **Wiehle TCR/N06 Area of Control**
Continued core drilling and saw cutting cable trough covers for the ETS and HC conduit penetrations.

- **Operations Area OP-10 (Wiehle Avenue Station/Laydown Area 13)**

Installing conduit for communications switch boxes and TEL-LAN and emergency circuits in the plenum, west service rooms, the Kiosk and pedestrian bridges; installing multi-conductor cable and wiring in the AC Switchgear Room, panels, transformers and equipment cabinets in AC room and throughout the station; preparing to energize AC Switchgear Room No. 2; installing platform ceiling lights; applying waterproofing on the mezzanine deck; installing fire suppression lines in the plenum and platform areas; installing glass frames for elevators; installing escalators and elevators at the south pavilion; installing fire suppression piping in the south pavilion service rooms; installing ceiling support system and grid on the mezzanine level and for the south pavilion; and installing sump pumps and piping in the south pavilion elevator pits.

c. Real Estate

Real Estate Acquisition continues to keep ahead of construction requirements, often resorting to ROE to gain access to required parcels. Through *February 2013*, 99 of the 104 parcels required for the Project have been acquired. The table below summarizes acquisition activities for the Project through *February 2013*. Three of the four remaining parcels have been delayed due to protracted negotiations with the owners and Fairfax County regarding deed language and other modifications needed to finalize the deeds and agreements.

PARCELS ACQUIRED¹
(Number of parcel packages)

LOCATION	TOTAL	Period			To Date		
		Planned ²	Actual	Var	Planned ²	Actual	Var
I-66 / DCR	1	0	0	0	1	1	0
Route 123	23	0	0	0	23	21	(2)
Route 7	54	1	0	(1)	54	51	(3)
DIAAH	26	0	0	0	26	26	0
TOTAL	104	1	0	(1)	104	99	(5)

Notes: 1. Parcels acquired through recordation of deed/easement and filing of Certificates of Take. These values include rights obtained for another 39 parcels for which Certificates of Take have been filed.

2. Planned values are based on the March 31, 2011 Property Acquisition Status Update. One additional acquisition was added in June 2012 was to be completed in September 2012 and another was added in October 2012 to be completed in February 2013. *However, the processing of documents has been delayed and are not expected to be completed until April 2013.*

Condemnation Status

Thirty-nine parcel packages have been obtained with the filing of thirty-three Certificates of Take. In *February 2013*, two cases had the Final Order entered (*Parcel 86/186 Maximums Properties, LLC*) and two cases are in finalization (*Parcel 125, JBG 1831 Wiehle Avenue, LLC and Parcel 81,*

CESC Commerce Executive Park, LLC). Substantial trial preparation work was performed during February for the upcoming trial.

Property Turnover to WMATA

MWAA has been conducting meetings with VDOT, Fairfax County and WMATA regarding the required transfer of property to WMATA that is expected to take place at some time between Substantial Completion and Revenue Service.

d. Utility Coordination

MWAA reported during the March 7, 2013 monthly meeting that Utility Relocation (UR), *is now considered to be 100% complete with the installation completion of new distribution pipe near TPSS #10 by Washington Gas.*

e. Vehicle Procurement

WMATA is procuring the 64 rail cars required for the project. WMATA is also procuring 300 replacement rail cars under the same contract. The WMATA and MWAA Boards agreed to share the development costs associated with the railcar procurement equally.

WMATA awarded a contract to Kawasaki on July 27, 2010. The manufacturer's proposed schedule showed the 64th car would be delivered by September 12, 2014 based on a July 12, 2010 Notice-to-Proceed (NTP), but WMATA did not issue the NTP until August 16, 2010, resulting in the conditional acceptance of the 64th rail car on January 15, 2015, six weeks beyond the FFGA completion date of December 1, 2014. The delivery of the first four production cars is forecasted to be February 20, 2014, and the conditional acceptance of the first four production cars is forecasted to be August 14, 2014.

On December 3, 2010, WMATA confirmed in a letter to MWAA that "sufficient resources including railcars will be available to support dynamic testing and initial revenue service in accordance with the Project's current schedule." WMATA confirmed that cars from the existing fleet would be made available for dynamic testing on the Dulles Extension. Since there would be a gap in the delivery of the 7000 Series rail car delivery and the revenue service date, WMATA outlined its strategies for being able to support initial revenue service using the existing WMATA fleet.

On March 16, 2011, Kawasaki formally notified WMATA of potential delays that they believe would be considered excusable under the terms of the contract due to the earthquake/tsunami in Japan on March 11, 2011. On December 21, 2011, WMATA approved Kawasaki's Mitigation Schedule with a June 12, 2015 delivery date for the 64th railcar, which is more than six months beyond the FFGA completion date for the DCMP. MWAA formally informed the FTA Regional Administrator in a letter dated January 31, 2012. In this letter, MWAA writes "WMATA has stated that they would be able to provide sufficient rail cars from their existing fleet to begin service on the extension until the new Kawasaki rail cars are available. Therefore, we expect no impact to the FFGA, other than the late delivery of the rail cars." The PMOC continues to monitor WMATA's daily railcar availability statistics to see if WMATA is improving railcar availability. WMATA developed an interim operating plan for dealing with the delay. However, the plan calls for using

six-car trains in lieu of a mix of six- and eight-car trains. This issue remains a concern of the FTA and PMOC. WMATA submitted this interim operating plan as part of the Rail Fleet Management Plan (RFMP). WMATA submitted RFMP Rev. 4F dated April 18, 2012 to the FTA on May 4, 2012. FTA and WMATA met to address this issue and WMATA prepared revisions to their RFMP and submitted RFMP Rev-4G to the FTA on August 3, 2012. FTA approved RFMP Rev-4G on October 11, 2012 with the proviso that that WMATA keep the FTA informed of the operating plan for the startup of the Dulles service. *The operating plan for the Silver Line service incorporating the extension to Largo has not yet been submitted to the FTA. The operating plan was originally scheduled for presentation to the WMATA Board of Directors on March 14, 2013 but has been delayed until April 11, 2013.*

The Conceptual Design Review phase for the 7000 (7K) Series railcars was completed on January 31, 2011 and the program moved into the Preliminary Design Review (PDR) phase. All PDRs were completed on March 16, 2012, more than eleven months past the original baseline schedule date of March 30, 2011.

Monthly Progress Review Meeting No. 30 between WMATA and Kawasaki on the 7000 Series railcars was held on *March 14, 2013 at the Jackson Graham Building* and the WMATA/PMOC 7K Rail Car Update Meeting was held on *March 19, 2013 at WMATA headquarters*. The Final Design Review (FDR) was *closed* February 28, 2013 a slippage of 343 calendar days. The completion of the Design Validation Review (DVR) also *occurred* on that date. *WMATA personnel left for Japan on Monday, February 18, 2013 for meetings and further DVRs. Design qualification testing (DQT) continues for components and subsystems. KHI production of prototype cars continues in Japan. DVR for the "A" and "B" cars was completed on February 27, 2013. KMM production of pilot cars continues. The DVR for the first carshells was completed on February 28, 2013. First Article Inspections have begun on components and will continue throughout the balance of 2013 and 2014.*

As noted in the schedule table below, the actual completion date of the A-Car mock-up was April 24, 2012, forty-six calendar days beyond the mitigation schedule completion date. Master Test Plan, Revision B was submitted for review on May 29, 2012 and the Test Master Plan was approved on July 19, 2012. As noted above, the completion of Final Design Reviews is now anticipated to be on February 28, 2013 which is 343 calendar days beyond the mitigation schedule. The Carbody/Truck First Article Inspection Approval *was* completed on December 25, 2012, which was 117 calendar days behind schedule. The final assembly of the prototype *cars* is now anticipated on March 15, 2013 which is 56 calendar days behind the mitigation schedule.

The key milestones for this railcar procurement are:

Item #	Description	Approved Baseline MPS Dates	Latest Approved MPS Dates (October 2012 update)	Actual and Current Forecast Dates
1	<i>Soft Mock up</i>	12/17/10	-	4/28/11A
2	<i>CDR Completion</i>	12/14/10	-	6/30/11A
3	<i>PDR Completion</i>	3/30/11	-	3/16/12A
4	<i>Hard Mock up</i>	10/4/11	-	4/24/12A
5	<i>Completion of HVAC Unit DVR</i>	NA	NA	8/10/12A
6	<i>Completion of Propulsion DVR</i>	NA	NA	9/21/12A
7	<i>Completion of ATC DVR</i>	NA	NA	10/10/12A
8	<i>Completion of Communications DVR</i>	NA	NA	10/19/12A
9	<i>Completion of Network DVR</i>	NA	NA	10/19/12A
10	<i>Begin Production of Pilot Cars #1, 2, 3 and 4 at KMM</i>	9/10/13	-	12/17/12A
11	FDR Completion	10/24/11	11/8/12	2/28/13A
12	Begin Car Level Qualification Testing in Japan	10/30/12	2/13/13	3/10/13A
13	Completion of Prototype Cars #1, 2, 3, and 4	10/29/12	2/12/13	3/15/13
14	Completion of KMM Test Track	NA	NA	5/21/13
15	Approval Climate Room Testing	2/15/13	5/31/13	5/9/13
16	Completion and Approval of Pilot Car Production Activities	9/30/13	5/31/13	5/9/13
17	Begin Pilot Car Testing at KMM	10/1/13	7/8/13	6/28/13
18	First Manual submission (DRAFT)	8/30/13	7/26/13	6/29/13
19	Completion of Pilot Car Testing at KMM	10/17/13	10/2/13	8/12/13
20	Completion of Prototype Car Review (Prior to Ship out from Japan)	5/14/13	7/31/13	9/30/13
21	Completion of Pilot Car FAI	10/21/13	10/3/13	10/4/13
22	Ship out of Prototype cars from Japan to USA	6/15/13	8/31/13	10/2013
23	Completion and Approval of FAI Activities	12/11/13	12/12/13	11/30/13
24	Delivery of first 4 Pilot Cars to WMATA	2/20/14	2/20/14	2/20/14
25	Delivery of first 4 production Cars to WMATA	2/11/14	2/20/14	2/20/14
26	Final Manual submission (DRAFT)	5/12/14	4/4/14	4/17/14
27	Conditional Acceptance of first 4 pilot Cars	8/14/14	8/14/14	8/14/14
28	Conditional Acceptance of first 4 Production Cars	8/14/14	8/14/14	8/14/14
29	Completion of On-site Test (After Burn-In)	2/19/15	2/19/15	2/14/15
30	Conditional Acceptance of 64th Production Car	6/12/15	6/12/15	6/12/15

Note: **Bold Activities/Dates** are contractual and contain a penalty for non-performance.

WMATA is developing an interim operations plan for dealing with the delay in delivery of the additional railcars. However, the plan calls for no eight-car trains and all six-car trains. This issue remains a concern of the FTA and PMOC. The PMOC continues to monitor both the progress of the procurement and WMATA's management. At the May 9 WMATA Quarterly meeting, WMATA pledged to meet with FTA to review alternative operating plans. FTA met with WMATA on July 3, 2012 to discuss the Interim Operating Plan. WMATA reviewed the current plan and resubmitted it as part of RFMP Rev-4G on August 3, 2012 for FTA's review. FTA accepted the RFMP on October 11, 2012, with the caveat that WMATA Board still needs to adopt an operating plan for the Silver Line and submit it to FTA for review. The first presentation of the plan to the Board was on December 6, 2012 at which WMATA staff presented a change in turn-back location from the Stadium-Armory Station to Largo Town Center Station. FTA awaits details of the reason for the change and the impact on car requirements *and the new operating plan. This plan is now expected to be presented to the WMATA Board of Directors on April 11, 2013.*

f. Safety and Quality Status

MWAA participated in *two* safety walk downs with DTP during the month of *February*. All were related to Design-Build work. As of *February 28, 2013*, DTP had logged 12.322 million project man-hours with 480 first aid cases and six lost time cases. There have been a total of 1,022 incident investigation reports, 91 utility hits and 43 vehicular accidents.

DTP submitted Safety and Security Certifiable Items List (SCIL) Revision 6 to include the WFCY on August 6, 2012. Comments were received from WMATA on September 21, 2012. MWAA completed its review and issued Letter No. 07547 dated October 24, 2012 identifying three issues needing to be addressed. DTP responded by letter on November 30th and MWAA and DTP met on December 18th to discuss the issues further. DTP subsequently resubmitted the SCIL Revision 6, which was approved "as noted" on February 5, 2013.

DTP and MWAA *now meet* every week to review the status of issued for construction designs (including subcontractor designs) and to determine the status of sign-offs of the Design Conformance Checklist (DCC) and Construction/Procurement/Installation Conformance Checklist (CCC) items related to all issued for construction designs.

DCC Submittal No. 10, *which brings the sign-offs to 98%*, was submitted on January 7, 2013 and is currently under review. The 100% DCC completion, with the exclusion of the WFCY, is *still* anticipated by the end of the 1st Quarter of 2013.

CCC Submittal No. 5, which brings the sign-offs to 17%, was submitted on February 19, 2013. MWAA expects to complete its review by March 19, 2013.

The project partners continue to struggle with agreement on how to implement DTP's proposed CCC documentation support procedure changes that utilize the Visual Measurement and Test (VMT) methodology for the sign-off back-up data. However, all partners remain engaged in discussions to work out an acceptable VMT procedure.

Regular weekly visits to work sites by safety representatives from DTP, MWAA and WMATA continue. The Tri-State Oversight (TOC) and the FTA's on-site PMOC representative continue to meet monthly with the Safety/Security Certification Working Group (SCWG) and continue ongoing involvement in the certification process. In addition, the TOC has begun attending the Monthly and Quarterly DCMP progress update meetings. The SCWG held its regular monthly meeting on *February 19, 2013*. The next SCWG Meeting is scheduled for *March 19, 2013*.

MWAA submitted its Safety and Security Management Plan, Revision 8, to the FTA on February 17, 2011. MWAA and WMATA agreed to jointly develop a revised SSMP that would cover the roles and responsibilities of both MWAA and WMATA. MWAA submitted Draft SSMP Rev. 9 to the FTA, PMOC, WMATA and TOC on September 30, 2011. WMATA completed its revision of its SSCPP in March 2012. The SSCPP was subsequently incorporated as Appendix E into SSMP Revision 9 and MWAA and WMATA approved the revised SSMP on March 20 and 22, 2012 respectively. The PMOC reviewed the completed revision and provided comments to the FTA on April 5, 2012. The FTA accepted the SSMP on April 13, 2012.

During *February 2013*, MWAA and DTP performed the following QA audit/surveillances:

- *The Punchlist Process: MWAA conducted this audit on February 13, 2013 and found the process to be satisfactory.*
- *Crystal Metal Works Miscellaneous and Ornamental Metals: DTP and MWAA conducted an audit on February 20, 2013. There was one recommendation and one observation. A response is due on March 15, 2013.*

MWAA QA Audit and Surveillance Schedule for March through May 2013

Tentative Date	Audit (A) Surv. (S)	Organization/Activity	Joint Audit/Surv	Lead
3/6-7/13	A	Whiting-Turner (WFCY)	Y	DTP
TBD	S	Permanent Equipment Facilities	Y	MWAA
4/10-11/13	A	Facchina Construction Co. (Pedestrian Bridges/Pavilions)	Y	MWAA
4/17-18/13	A	DTP System Safety/Security Program	N	MWAA
4/24-25/13	A	Facchina Construction Co. (Late C6)	Y	MWAA
5/01-02/13	A	DTP Startup and Testing	N	MWAA

Use of Existing Foundations

As a result of the USDOT Office of Inspector General's audit report of the Dulles Project dated July 26, 2012, testing of the foundations installed in the 1970's by VDOT for the future extension of the Silver Line, MWAA will conduct tests to determine the effects, if any, of stray current on the service life of the steel piles that made up those foundations. To assure that the existing steel piles to be re-used for the Dulles Extension provide a minimum of a fifty year service life, MWAA is undertaking stray current tests to calculate the piles' corrosion rate and estimate their remaining service life. The following table contains a summary of the actions to be taken to estimate the remaining service life of the re-used steel piles. Russell Corrosion Consultants, Inc. was employed by MWAA to develop a

Corrosion Test Plan and to oversee implementation of that plan. Russell developed a Draft Corrosion Testing Plan, and numerous comment resolution meetings were conducted during August with all partners. A Final Plan was submitted to MWAA on September 14, 2012 for review and acceptance. MWAA accepted the plan and submitted it to the FTA for review and approval via MWAA Letter No. 07403 dated September 24, 2012. WMATA reviewed and accepted the plan on October 5, 2012 via an email. FTA has requested that WMATA formally approve the plan via letter. *This has not yet occurred.* The FTA reviewed the plan and provided an acceptance letter dated November 1, 2012. A Site Specific Work Plan was submitted to WMATA for review and approval on October 10, 2012 and was subsequently approved on November 9, 2012. A planning meeting with all partners was conducted on November 20, 2012. It was a productive meeting that was well attended by all partners. Coordination of the night access and necessary escorts was discussed. UTRS, under the oversight of Russell Corrosion Consultants and CTI Special Inspection and MWAA/QA, began work on December 11, 2012. As of January 8, 2013, the contractor has completed the Vertical Test Facility (VTF) installation at both piers 3-IB and 5-IB. The test plan now calls for the VTFs to be left to settle for 30 days, after which the specified testing will commence. UTRS has been conducting *track-to-earth resistance testing.* However, MWAA reported UTRS has experienced numerous delays caused by weather and track access issues and has only completed 5 of 11 sections thus far. MWAA hopes that UTRS can complete its track-to-earth testing during the second week of March so that VTF stray current testing can commence. However, the completion of the track-to-earth testing is dependent upon dry weather and cooperation from WMATA for the necessary track access. At the March 7th Update Meeting, MWAA indicated that the completion of track-to-earth testing is now anticipated to be completed on March 25, 2013. Based on weather conditions, the draft preliminary report for Piers 3 IB and 5 IB is expected in mid-May 2013.

OIG Report Follow-up Action Items

	Action Item	Due Date	Comments
1	Provide a copy to the OIG of the final stray current test plan MWAA will implement, including a plan for accounting for untested locations and for collecting baseline track-to-earth resistance measurements	As soon as the plan become available	
2	Provide documentation to OIG on actions taken on the stray current testing	10 days after action is completed	
3	Provide documentation to OIG on actions taken on corrosion protection measures installation plan	10 days after action is completed	
4	Provide documentation to OIG on actions taken pertaining to the rail car delivery schedule	10 days after action is completed	

3. Project Management Plan and Sub-plans

The FTA accepted MWAA's **Project Management Plan (PMP)** Version 7.0 Final on February 14, 2011. FTA requested MWAA update its PMP to include the start-up and testing phase. MWAA submitted its Version 8.0 Draft to the FTA on May 1, 2012. The PMOC provided its draft review and comments to the FTA on June 11, 2012. On July 9, 2012 the FTA sent comments to MWAA and requested a PMP Version 8.0 Final or a PMP Version 9.0 be submitted by November 1, 2012. *PMP* Version 8 Final was submitted to the FTA on November 8, 2012. The PMOC reviewed this submission and found it acceptable with the exception of the inclusion of draft organization charts, Figures 2-4 and 2-5. FTA's email of January 4, 2013 requested the updated organization charts, which MWAA submitted on January 23, 2013. The FTA approved PMP Version 8.0 Final on January 25, 2013.

- MWAA submitted a revised **Quality Program Plan (QPP)**, Revision 7 to FTA on January 7, 2010. MWAA reported that three Project Management Procedures were updated in the period from April through June 2011. No new QPP procedure updates were made during the period from July through January 2012.
- MWAA's **Real Estate Acquisition Management Plan (RAMP)**, Revision 2, dated September 15, 2009, has been reviewed by the PMOC with a recommendation that the FTA concur, with comments, with the revised RAMP. On January 21, 2010, the FTA provided comments to MWAA, and MWAA staff has revised Procedure PM-3.01 (Monitoring the Design-Build Contractor Property Acquisition Services). DTP revised their Procedure PIQ-5.1 (Property Acquisition Coordination) on November 1, 2010.
- The FTA requested MWAA to update its **Risk and Contingency Management Plan (RCMP)**, formerly called a Risk Management Plan (RMP), along with their Project Management Procedures to address Directive Letters and Contingency Drawdown Procedures. MWAA submitted the revised RCMP Rev. 3 on March 28, 2012, and the PMOC recommended FTA acceptance. The FTA accepted RCMP Rev. 3 as well as revised Project Management Procedure PM 5.07, Rev. 4, on April 13, 2012. MWAA updated the Risk Register Assessment on June 30, 2012 and submitted it to the FTA and PMOC on August 27th. A discussion was held during the PMOC's September 6 monthly meeting. The PMOC provided review comments and a modified Top Ten Risk List that was reviewed by MWAA. MWAA provided a submittal dated October 3, 2012 of its review and proposed changes to the FTA/PMOC for review and approval. The FTA approved the revised Top Ten Risks by letter dated November 29, 2012. It was agreed that the top ten risks would be reviewed and revised as needed on a quarterly basis. A revised list of Top Ten Risks dated December 2012 was submitted to the FTA via letter dated January 22, 2013. *The PMOC submitted its comments on the proposed revised risks to MWAA on February 22, 2013 and the comments were discussed at the March 7, 2013 update meeting. MWAA will revise the proposed top ten risks and resubmit them.*

Since WMATA, rather than MWAA, will be the operator of the completed project, the WMATA **Rail Fleet Management Plan (RFMP)** is the applicable document. The FTA accepted a WMATA RFMP on September 25, 2007. However, WMATA updated the RFMP to reflect the 7000 Series Rail Car procurement and submitted a draft copy dated February 26, 2010 to the FTA for review and comment.

The PMOC issued its Spot Report on its review of the draft RFMP on March 11, 2010, finding the plan to be deficient in many areas. The FTA, PMOC and WMATA continued the review and comment reconciliation process of various draft revisions. FTA and the PMOC provided some additional comments and WMATA's RFMP Rev. 4E dated March 14, 2012 was submitted to the FTA on April 10, 2012. FTA's comments on that revision were submitted to WMATA on April 12 with the request that the comments are incorporated and the final document then be formally submitted to the FTA Regional Administrator. WMATA submitted RFMP Rev. 4F dated April 18, 2012 to the FTA on May 4, 2012. FTA and WMATA met on July 3, 2012 to address the issue of the Dulles Interim Operations Plan. WMATA has revised their RFMP and RFMP Rev 4_G was submitted to the FTA on August 3, 2012. FTA letter dated October 11, 2012 conditionally approved the RFMP with the proviso that WMATA keep the FTA informed of the operating plan for the startup of the Dulles service. With the proposed change in the eastern turnaround moving from Stadium-Armory Station to Largo Town Center Station, FTA requested an updated RFMP once the WMATA Board formally adopts this operating change, which is expected in March 2013. *FTA awaits WMATA's submission of the updated operating plan.*

Safety and Security Management Plan (SSMP) see Section 2f.

4. Project Schedule

Mainline - The project "Mitigation Schedule" update with a data date of *January 25, 2013* again reflects a -7 calendar day variance with a *September 6, 2013* SSCD. DTP's schedule shows the Revenue Service Date to be January 10, 2014. MWAA completed its schedule review of the schedule update with a data date of *January 25, 2013* on *February 26, 2013* and determined it to be "not accepted." MWAA Letter No. 07990 stated that this was "largely due to the incorporation of the unapproved Commissioning and Integration Testing Schedule which represents a significant portion of the remaining activities" despite MWAA's rejection of that testing schedule. MWAA also stated that "DTP also continues to ignore specifications by adding activities, deleting activities, changing relationships, using constraints, and changing durations contrary to...contract requirements."

This mitigation schedule supersedes the previously approved recovery schedule with a data date of December 25, 2010 that was finally settled in mid-September 2011 but does not relieve DTP from their obligations to the earlier recovery schedule. MWAA reported during the July 10, 2012 Monthly Update Meeting that RFC160 and RFC161 related to the mitigation schedule has been settled along with the language on June 15, 2012. The official final approval was finally provided on December 6, 2012.

MWAA and DTP continue the ongoing deliberation process of determining weather related excusable delay days as reflected in the table below. As a result, the SSCD has been adjusted to August 29, 2013. However, DTP'S assessment has reported an additional 15 calendar days of weather delay that if approved would move the SSCD to September 13, 2013.

MWAA's Report of Excusable Work Days of Delay through January 25, 2013

ACTION	WORK DAYS
Total Excusable Days of Delay on Project Critical Path requested by DTP	73
Contractually Identified	27
Retracted by DTP	16
Denied by MWAA/Disputed by DTP	8
Under evaluation by MWAA	0
Granted by MWAA	22

The schedule-related issues regarding the delivery of rail cars are discussed in section 2.f. Vehicle Procurement above.

West Falls Church Yard - The WFCY Civil/Site work final design was completed and issued for permit in October 2010. The S&I Building Issued for Permit (IFP) drawings were submitted to DGS on May 3, 2011 and they issued a permit on September 15, 2011. The Sound Cover Box IFP drawings were submitted to DGS on May 18, 2011 and DGS issued a permit on September 7, 2011.

MWAA and DTP agreed to a target completion date of December 20, 2013. DTP's schedule update of *January 25, 2013* reflects a -28 calendar day variance to the targeted date (*to January 18, 2014*). It should be noted that WFCY activities and completion dates are only overlaid on the master mainline schedule and not connected to the mainline critical path or SSCD and does not include systems integration into the mainline system. MWAA and WMATA continue considering parts of the WFCY expansion that may not be needed to support the RSD should the Project be unable to achieve the target date. WMATA has noted that the storage tracks are most critical to WMATA's needs to support start-up and operation. The PMOC remains confident that the project can be completed before the FFGA RSD of December 1, 2014. It is the PMOC's opinion that SSCD can be achieved by September 30, 2013. RSD is dependent upon the completion of WMATA's schedule associated with the Rail Activation Plan (RAP).

Other problem areas with potential delays identified by MWAA include the following:

- Kone's work related to elevators and escalators in stations and pavilions falling behind schedule. *In response, Kone has added crews.*
- *ETS software and field wiring issues.*
- WMATA required points of testing for acceptance are now up to 700 points per location, necessitating an increased number of resources in order to avoid any adverse impact if something in the field is not wired correctly or if there is an abnormality in the software program.
- DGS availability for walk-downs and inspections.
- Obtaining required weekend outages from WMATA for K-Line systems testing.
- WMATA systems upgrade programs could have other technical scope changes impacting Traction Power, Automatic Train Control, and Communications.
- *Approval of DTP proposed Commissioning and Integration Testing Schedule.*

- DTP's late submission of PAC sheets required for ARINC OCC software.
- Availability of spare parts for the K & N cutover.

a. Critical Path Evaluation

Since November 1, 2011, the Project is managed utilizing the work plan set forth in MWAA's November 1, 2011 Directive Letter to implement a Mitigation Schedule with a data date of October 25, 2011.

In DTP's *January 2013 Schedule Update*, the Critical Path No.1 *again* has a -7 calendar days of float and starts with *Emergency Trip Station Remote Monitoring Testing project wide; 3rd rail energization for Segments N01 (Tysons East), N02 (Tysons Central 123), and N93 (Chathams Ford Road); dynamic testing from N93 to N06 (Chathams Ford Road to Wiehle Avenue); and ends with the system performance demonstration. Although the path itself may be acceptable, the MWAA assessment does not agree with the way the remaining tasks are being sequenced and represented. DTP has been asked to resubmit the Commissioning and Integration Schedule for the third time. The Commissioning and Integration Testing Schedule is the key component of the remaining tasks.*

The PMOC *is in agreement with* MWAA's assessment regarding the critical path. MWAA continues to carefully analyze the schedule and continues to hold DTP accountable for changes made to the agreed schedule.

The following table compares the milestone dates relative to the approved baseline schedule. The PMOC concurs with MWAA's assessment of the updated schedule.

MILESTONE	June 2008 Baseline Schedule	December 2010 RECOVERY SCHEDULE	December 2012	January 2013
Receipt of FFGA	03/03/09	03/10/09 ^A	03/10/09 ^A	03/10/09 ^A
Station Design Complete	10/21/09	02/18/11	10/28/11 ^A	10/28/11 ^A
Utility Relocation Complete	03/05/10	09/13/11	01/31/12 ^A	01/31/12 ^A
Aerial and Station Foundations Complete	3/4/11	09/01/11	07/23/11 ^A	07/23/11 ^A
NATM Tunnels Mined	01/29/11	12/03/10 ^A	12/03/10 ^A	12/03/10 ^A
K-Line Track Tie-In	12/23/11	03/28/12	10/14/11 ^A	10/14/11 ^A
Guideway Complete	2/12/12	09/13/12	11/26/12 ^A	11/26/12 ^A
Train Control Installation Complete	10/26/12	10/29/12	02/05/13	02/26/13 ^{**}
Systems Testing Complete - Tysons East Station	07/24/12	02/21/13	05/20/13	05/20/13
Systems Testing Complete - Wiehle Ave Station	08/13/12	01/16/13	06/21/13	06/21/13
Systems Testing Complete - Central 7 Station	01/23/13	04/12/13	06/21/13	06/13/13
Systems Testing Complete - Tysons West Station	02/21/13	05/14/13	07/11/13	07/11/13
Systems Testing Complete - Tysons 123 Station	12/20/12	03/28/13	07/09/13	07/02/13
Substantial Completion	07/31/13	07/31/13	09/06/13	09/06/13
Completion - WFCY	NA	N/A *	12/30/13	01/17/14
Revenue Operations – Target	11/27/13	01/02/14	01/10/14	01/10/14
FFGA Revenue Operations	12/01/14	12/01/14	12/01/14	12/01/14

^A Actual Date. See narrative in section D.1.3. *Agreed Target Date is 12/20/13.

^{**} The train control completion date will be updated in the February 25, 2013 Schedule Update. Reports from the field indicate Train Control Installation (excluding WFCY) was completed on February 3, 2013.

b. Important Activities – 90-Day Look Ahead

The important milestones scheduled for the next 90 days include:

- Property acquisitions for the Tysons West Aerial Guideway (OP-8).
- Property acquisition for the DIAAH Trackway and the Wiehle Avenue Station and Tail track (OP-9 and 10).
- Complete train control equipment installation.
- K98 ATC circuits cutover.
- Begin N-Line dynamic train testing.
- Complete 3rd rail initial energizations between Tysons East Station and Wiehle Avenue.

5. Project Cost

The SCC Budget and Expenditures summary for the period ending *January 25, 2013* is shown below. Overall, approximately 83% of the budget (excluding contingency and finance charges) has been expended.

Project Cost Summary by SCC Code - January 2013 Federal Only

FTA SCC CODE	DESCRIPTION	CURRENT BUDGET ¹	EXPENDED TO DATE	ESTIMATE AT COMPLETION	CONTINGENCY TO DATE
10	Guideway and Track Elements	\$ 636,886,816	\$ 622,798,332	\$ 630,162,611	\$ 40,020,254
20	Stations	\$ 344,176,255	\$ 261,357,039	\$ 350,900,460	\$ 26,192,703
30	West Falls Church Yard	\$ 71,155,649	\$ 24,138,007	\$ 70,965,618	\$ 7,771,036
40	Site Work & Utility Relocation	\$ 239,561,397	\$ 208,412,073	\$ 261,027,878	\$ 7,944,677
50	Systems	\$ 323,353,279	\$ 270,275,156	\$ 320,203,395	\$ 23,949,088
60	Right of Way Acquisition	\$ 67,631,026	\$ 56,524,989	\$ 62,310,611	\$ 809,164
70	Vehicles	\$ 195,352,701	\$ 57,343,261	\$ 194,648,939	\$ 16,491,446
80	Professional Service – FD	\$ 733,982,917	\$ 731,649,798	\$ 800,909,831	\$ 69,871,763
90	Contingency Mgmt. Reserve ²	\$ 92,187,023	\$ -	\$ 13,157,721	\$ 167,690,747
100	Finance Charge ³	\$ 438,184,571	\$ 103,131,435	\$ 438,184,571	\$ -
Subtotal		\$ 3,142,471,635	\$ 2,335,630,091	\$ 3,142,471,635	\$ 360,740,879

1. Current budget equals FFGA amount plus change orders CO-001-081, 083-115, 117, 119-129, Directive Letters 001-049, UR-CO-001-039

2. Estimate at Completion for Contingency reflects the amount approved for utilization per PM-5.07.

3. The transfer of Finance Costs under-run of \$71.8 million to the contingency was approved in December 2012.

General Comments:

1. Per FTA's direction during the quarterly progress review meeting held on 5/9/2012, the overruns on the Allowance subcontracts awarded and yet to be transferred to Firm Fixed Price are obligated.

a. Explanation of Variances

The major variances in the *FFGA* project budget are associated in seven categories as noted below:

1. SCC10 – Guideway and Track Elements has been reduced approximately \$36.33 million due to the decision by the DB contractor to self-perform the NATM tunnel work. In so doing, \$29.2 million was transferred out of the direct account to other accounts including predominantly

SCC80 for the professional services portion of the subcontract budget. This was offset by scope additions and other budget transfers, the most notable being the adjustment for the revised federal/non-federal split, the addition of the directive letter for crossing the Beltway during construction of the HOT Lanes Project by VDOT and the addition of sales tax to permanent materials.

2. SCC20 – Stations has been increased by approximately \$33.87 million. The decision by the Airports Authority to remove the Wiehle Avenue Parking Garage – Allowance Item C-2, due to the Fairfax County Joint Development project, allowed the transfer of \$29.1 million out of the direct account into the unallocated contingency account. This was offset by a combination of add and subtract change orders, the most notable addition being the transfer from the tunnel subcontract. In addition, the allowance item for stations finishes and MEP increased over budget.
3. SCC30 – WFC Yard has increased by approximately \$19.17 million due to delay in progressing the design and additional requirements requested by WMATA.
4. SCC40 – Site work and Utility Relocation has been increased by approximately \$28.06 million as a result of a combination of change events (change orders, directive letters and scope transfers) and cost overruns. The forecast adjustments are predominantly due to cost overruns in utility relocations.
5. SCC50 -- Systems has increased by \$41.19 million due to additional WMATA requirements for Traction Power Remote Monitoring, Emergency Trip Station/Amber Light Warning System and requirements for Communications.
6. SCC60 – Right of Way Acquisition experienced nearly \$16.36 million increases primarily due to adjustment of project cost for the revised federal/non-federal split along Route 7.
7. SCC70 – Vehicles has been reduced by \$16.98 million due to actual bid prices.
8. SCC80 – Professional Services increased approximately \$102.43 million. The change events are numerous with the most significant being the transfer from the tunnel subcontract and the addition of design for the HOT Lanes and WFCY. The forecast adjustment is predominantly attributed to higher project management costs for MWAA, PMSS and VDOT. In addition, WMATA budget transfers are treated as forecast adjustments.

SCC90 – Contingency Management Reserve estimate at completion of \$13.16 million is available for future use with the transfer of the Finance Costs under run of \$71.8M *which was authorized by the MWAA Board in December 2012 and the \$19M under-run in commodity escalation.* The PMOC is of the opinion that the *remaining* contingency reserve with the \$40.4 million in CNPAs added to the remaining contingency is adequate. MWAA indicates that there are seventeen Design-Build Change Orders totaling \$19.65M under evaluation and three Utility Relocation Change Orders totaling \$5.93M under evaluation. In addition, there remain eighty-eight Design-Build Potential Change Orders and five Utility Relocation Subcontractor Changes under review.

b. Monthly Cost Report, January 2013 Federal Only

DESCRIPTION	FFGA AMOUNT (Original)	EXPENDITURE TO DATE ¹	ESTIMATE TO COMPLETE	ESTIMATE AT COMPLETION	PERCENT OF EAC EXPENDED TO DATE
FEDERAL (FFGA SCOPE)					
Design-Build					
Firm Fixed Price	\$ 1,112,052,173	\$ 1,613,670,396	\$ 159,985,235	\$ 1,773,655,630	
Firm Fixed Price Insurance and Bonds	\$ 65,109,408	\$ 73,760,365	\$ 1,475,895	\$ 75,236,260	
Firm Fixed Price Subtotal	\$ 1,177,161,581	\$ 1,687,430,761	\$ 161,461,129	\$ 1,848,891,890	
Subcontract Allowance	\$ 430,199,817	\$ -	\$ 40,203,448	\$ 40,203,448	
Design-Build Contract Prices	\$ 1,607,361,398	\$ 1,687,430,761	\$ 201,664,577	\$ 1,889,095,338	
Indexed Commodity Escalation	\$ 77,469,926	\$ -	\$ 18,545,207	\$ 18,545,207	
Design-Build Contract Total	\$ 1,684,831,325	\$ 1,687,430,761	\$ 220,209,784	\$ 1,907,640,545	88%
Utility Relocation					
Utility Work	\$ 84,312,807	\$ 95,713,371	\$ 6,761,106	\$ 102,474,477	
Terf Tax	\$ -	\$ -	\$ -	\$ 0	
Project Management and Final Design	\$ 8,423,426	\$ 25,436,805	\$ 304,411	\$ 25,741,216	
Utility Relocation Total	\$ 92,736,233	\$ 121,150,176	\$ 7,065,517	\$ 128,215,693	94%
Right of Way					
Right Of Way Total	\$ 42,443,132	\$ 56,853,822	\$ 6,081,789	\$ 62,935,611	90%
WMATA Agreement					
Vehicles	\$ 195,138,329	\$ 57,343,261	\$ 137,305,677	\$ 194,648,939	
Construction and Procurement	\$ 31,484,799	\$ 9,777,481	\$ 18,320,636	\$ 28,098,117	
WMATA Force Account Startup	\$ 13,777,100	\$ 6,643,797	\$ 6,761,224	\$ 13,405,021	
Project Management and Final Design	\$ 31,235,400	\$ 25,292,374	\$ 10,191,178	\$ 35,483,552	
WMATA Agreement Total	\$ 271,635,628	\$ 99,056,913	\$ 172,578,715	\$ 271,635,628	36%
Preliminary Engineering^{2,3}					
Preliminary Engineering Total	\$ 100,968,646	\$ 100,730,999	\$ -	\$ 100,730,999	100%
Airports Authority Services					
General Conditions ⁴	\$ 28,879,153	\$ 10,916,834	\$ 19,133,944	\$ 30,050,778	
Airports Authority Project Management and Wiehle Ave Garage	\$ 23,225,717	\$ 33,640,373	\$ 10,996,159	\$ 44,636,532	
Project Management Support	\$ 90,004,649	\$ 122,718,778	\$ 22,564,778	\$ 145,283,556	
Airports Authority Services Total	\$ 142,109,519	\$ 167,275,985	\$ 52,694,881	\$ 219,970,866	76%
Contingency⁵					
Contingency Total	\$ 297,762,579	\$ -	\$ 13,157,721	\$ 13,157,721	
Finance Costs⁶					
Finance Costs Total	\$ 509,984,571	\$ 103,131,435	\$ 335,053,136	\$ 438,184,571	
Total Federal (FFGA Scope)	\$ 3,142,471,635	\$ 2,335,630,091	\$ 806,841,543	\$ 3,142,471,635	83%

1 Reflects Paid costs through January 31, 2013

2 Preliminary Engineering Period (PE) - Prior to August 1, 2007

3 Preliminary Engineering actuals have been agreed to be \$100,730,999. This is \$237,646 under the original budget of \$100,968,646. The under run is transferred to unallocated contingency.

4 The line item marked General Conditions includes Temporary Facilities Development, Hazardous Material Remediation, Miscellaneous Access Roads and Wiehle Ave Garage.

5 Estimate at Completion for Contingency reflects the amount approved for utilization per PM-5 07.

6 The transfer of Finance Costs under-run of \$71.8 million to the contingency was approved in December 2012.

General Comments:

1 Per FTA's direction during the quarterly progress review meeting held on 5/9/2012, the overruns on the Allowance subcontracts awarded and yet to be transferred to Firm Fixed Price are obligated.

c. Project Funding Sources: January 2013

SOURCES OF CAPITAL FUNDING	GRANT ID	PERCENT AT COMPLETE	TOTAL	EXPENDED TO DATE ¹	PERCENT FUND SOURCE EXPENDED TO DATE	REMAINING
Sec 5309 New Starts Federal Funds						
Preliminary Engineering Grants			\$ 54,412,526	\$ 54,412,526	100%	\$ -
Final Design Grant	VA-03-0113-00		\$ 159,001,838	\$ 159,001,838	100%	\$ -
ARRA Construction Grant	VA-36-0001-00		\$ 77,260,000	\$ 77,260,000	100%	\$ -
FFGA Construction Grant	VA-03-0113-02		\$ 28,809,000	\$ 28,809,000	100%	\$ -
FFGA Construction Grant	VA-03-0113-03		\$ 85,000,000	\$ 85,000,000	100%	\$ -
FFGA Construction Grant	VA-03-0113-04		\$ 115,799,000	\$ 115,799,000	100%	\$ -
FFGA Construction Grant ⁵	VA-03-0113-05		\$ 90,832,000	\$ 90,832,000	100%	\$ -
FFGA Balance	Planned		\$ 288,885,636	\$ -	0%	\$ 288,885,636
Subtotal - New Starts		28.64%	\$ 900,000,000	\$ 611,114,364	67.90%	\$ 288,885,636
Other Federal Funds						
Sec 5307 Surface Transportation Program						
Construction Grant	VA-95-X056-01		\$ 47,218,109	\$ 47,218,109	100%	\$ -
Construction Grant	VA-95-X056-02		\$ 21,281,890	\$ 21,281,890	100%	\$ -
Construction Grant	VA-95-X056-03		\$ 6,500,001	\$ 6,500,001	100%	\$ -
STP/Sec. 5307		2.39%	\$ 75,000,000	\$ 75,000,000	100%	\$ -
Local Funds						
VTA 2000						
			\$ 51,700,000	\$ 51,700,000	100%	\$ -
Commonwealth Transportation Bonds ^{2,5}						
			\$ 125,000,000	\$ 125,000,000	100%	\$ -
Fairfax County Funds ³						
			\$ 523,750,000	\$ 369,089,733	70%	\$ 154,660,267
Dulles Toll Road Revenues ^{2,4,5}						
			\$ 1,467,021,634	\$ 1,103,725,994	75%	\$ 363,295,640
Subtotal - Local Funds		68.97%	\$ 2,167,471,634	\$ 1,649,515,727	76.10%	\$ 517,955,907
Total Project Budget		100%	\$ 3,142,471,634	\$ 2,335,630,091	74.32%	\$ 806,841,543
Interrelated Highway Activities						
			\$ 201,408,229	\$ 100,448,146	49.87%	\$ 100,960,083
DTR Revenues/Commonwealth Funds³			\$ 201,408,229	\$ 100,448,146	49.87%	\$ 100,960,083
TOTAL			\$ 3,343,879,863	\$ 2,436,078,237	72.85%	\$ 907,801,626

¹ Reflects costs through January 31, 2013

² In January 2010, \$23.6 million previously identified as pay-go Dulles Toll Road (DTR) Revenues were reclassified as Commonwealth Transportation Board (CTB) funds, reducing the contribution from DTR revenues and increasing the contribution from CTB funds

³ Includes Tax District Revenues (\$400 million) plus debt service costs allocated to Project Budget

⁴ Includes pay-as-you-go revenues and bond proceeds

⁵ Expenditures include accruals

6. Project Risks

The PMOC reviewed MWAA's updated Risk Assessment dated April 15, 2011. A series of meetings during the following eleven months led to submission of RCMP Revision 2c on March 5, 2012. The FTA and PMOC provided comments on March 16, 2012 and MWAA submitted RCMP Rev. 3 to the FTA for approval by letter dated March 28, 2012. The FTA approved the RCMP on April 13, 2012. In June 2012, MWAA updated the Risk Register. This document and a recommendation to update the Top Ten Risks were forwarded to the FTA and the PMOC for review on August 27, 2012. FTA, the PMOC and MWAA discussed this issue during the PMOC's September monthly site visit. The PMOC provided review comments and a modified Top Ten List that will be reviewed by MWAA. MWAA provided a submittal dated September 30, 2012 of its review and proposed changes to the FTA/PMOC for review and approval. FTA approved the revised Top Ten Risks by letter dated November 29, 2012. MWAA submitted a list of revised Top Ten Risks dated December 2012 on January 22, 2013. *The PMOC submitted its comments on the proposed revised risks to MWAA on February 22, 2013 and the comments were discussed at the March 7, 2013 update meeting. MWAA will revise the proposed top ten risks and resubmit them.*

Budget Risks: MWAA has allocated \$71.8 million in finance cost savings and \$19 million of Commodity Escalation under run monies to Contingency. This brings the total Contingency to \$388,562,579. Through *January 25, 2012*, MWAA reports that it has utilized \$356,416,703 of the \$361,800,000 available contingency for the first *ten* contingency milestones leaving a balance of \$5,383,297. For phases *11* through *12* MWAA reports obligating \$18,988,157 of the available \$26,762,579 leaving an available balance of \$7,774,424. Therefore, as of *January 25, 2012*, the project has an estimated balance at project completion of \$13,157,721. MWAA's transfer \$90,800,000 to contingency has improved the Project Contingency situation. However, the project must be diligent in its efforts to identify additional contingency monies and to control the project overrun costs. As noted elsewhere in this report, there are significant Design-Build (*15*) and Utility Relocation (*3*) Change Orders under evaluation and a large number of Potential Change Orders (*101*) and Utility Relocation Subcontractor Changes (*5*) still under review.

MWAA submitted a tabulation of possible Concurrent Non-Project Activities (CNPAs) that could further improve the Contingency on July 6, 2012 with a total value of approximately \$63.9 million. This tabulation was reviewed by the FTA and PMOC and additional information was requested from MWAA on July 30, 2012. The revised tabulation of CNPAs was submitted on August 10, 2012. MWAA and the FTA/PMOC discussed this tabulation following the September 7 monthly meeting. The FTA/PMOC indicated that there was a potential \$23,861,089 that could be considered CNPAs. FTA indicated that \$19,511,703 in additional cost would be taken up with the FTA Administrator for possible inclusion in the CNPAs. The FTA subsequently identified \$36.7 million of CNPAs in its November 6, 2012 letter to MWAA. MWAA's letter of November 28, 2012 corrected the total for CNPAs to \$40.38M, citing inconsistencies in the FTA numbers and requesting verification. MWAA is currently developing the documentation to confirm the refund of any federal funds previously drawn down to pay for these ineligible costs.

MWAA acknowledges that WMATA will contribute no funding, that the FTA and VDOT budgets are fixed, and that the local funding partners bear their share of the non-FFGA budget overruns; all principles understand their financial responsibility and all budget overruns will be managed according to the agreed funding plan.

Schedule Risks: With regard to Schedule Contingency, MWAA and DTP previously agreed to a zero loss recovery schedule with a data date of December 25, 2010. This recovery schedule had a mitigation period of fourteen months, extending from January 2011 through February 2012 to recover 113 calendar days of the total of 510 calendar days. MWAA and DTP are now working off a new Mitigation Schedule with a data date of October 25, 2011 that was accepted "as noted" on November 23, 2011. Through *January 2013*, MWAA has granted DTP time extensions of 30 calendar days reducing the available contingency from 510 to 480 calendar days. MWAA reports having denied nine claimed weather delay days that DTP continues to pursue. However, DTP'S assessment has reported an additional 15 calendar days of weather delay that if approved would move the SSCD to September 13, 2013. In the PMOC's opinion, some of the arguments made by MWAA appear to be weak, i.e. night shift weather delays can only be considered on the day the shift would have ended, despite weather impacts incurred on the front end of the shift. If more denied potential excusable weather delays continue to mount without solid arguments, MWAA may be at risk of a DTP self-imposed constructive

acceleration to meet the required completion date. *MWAA reported during this March 7, 2013 monthly update meeting that an agreement was anticipated within the next several weeks.*

Top Ten Risks: MWAA provided a submittal dated September 30, 2012 of its review and proposed changes to the Top Ten Risks for review and approval. FTA approved the revised Top Ten Risks by letter dated November 29, 2012. MWAA submitted a list of revised Top Ten Risks dated December 2012 on January 22, 2013. *The PMOC submitted its comments on the revised top ten risks to MWAA on February 22, 2013 and discussed the comments with MWAA on March 7, 2013. MWAA is revising the list (resubmittal was issued on March 20, 2013).*

Summary Status of the Proposed Top Ten Project Risks, December 2012

RISK NUMBER	RISK DESCRIPTION	RISK STATUS			
		SINCE INCLUSION ON TOP TEN LIST		Since November 2012 Update	
		COST	SCHEDULE	COST	SCHEDULE
M27	Delay in Vehicle (Rail Car) Delivery beyond the specified FFGA ROD date of December 1, 2014.	Unchanged	Unchanged	Unchanged	Unchanged
C27	WMATA resource constraints delay system acceptance or operational testing resulting in additional costs.	Unchanged	Unchanged	Unchanged	Unchanged
C20	WMATA deliverables scope of work – including technical support and WMATA construction elements may exceed the budget and schedule.	Unchanged	Unchanged	Unchanged	Unchanged
C21	Availability of track access for the Contractor to complete the K-Line connection work.	Unchanged	Unchanged	Unchanged	Unchanged
C39	Other construction issues (WFCY delayed construction which effects opening of the system).	Decreased	Decreased	Unchanged	Unchanged
D34	WMATA Delay in reviewing/approving DTP shop drawings and systems test plans and reports.	Decreased	Decreased	Unchanged	Unchanged
C40	Other Construction issues (station finishes)	Unchanged	Unchanged	Unchanged	Unchanged
D41	Powell proposed NDC Breaker not accepted by WMATA	Unchanged	Unchanged	Unchanged	Unchanged
C41	Completion of the installation of the upgrade for the new (proposed) communications center at WMATA’s Carmen Turner Building	Unchanged	Unchanged	Unchanged	Unchanged
R23	Automatic Train Control (ATC) system requirements per NTSB concerns and other systems issues resulting from the Red Line accident and NTSB safety report.	Decreased	Decreased	Decreased	Decreased

7. Action Items

MWAA – DULLES CORRIDOR METRORAIL PROJECT - Items for Grantee Action

PR	ITEM	IDENTIFICATION	NATURE of PROBLEM	D	A	I	COMMENTS	STATUS
3	2A.05	Submit Updated Risk Register developed in June 2012	FTA and PMOC need to review the updated document.	Y	Y	Y	MWAA provided a submittal dated September 30, 2012 of its review and proposed changes to the FTA/PMOC for review and approval. FTA issued an approval letter on November 29, 2012. <i>MWAA submitted a list of revised Top Ten Risks dated December 2012 on January 22, 2013. Based on PMOC's comments, MWAA is revising their list (issued on March 20, 2013).</i>	R
2	2B.01	<i>Submit dates and responsible individuals for the Readiness for Revenue Operations Roadmap provided on February 12, 2013.</i>	<i>FTA and PMOC need to schedule necessary readiness reviews.</i>	N	N	N	<i>Information for roadmap was requested by February 28, 2013. MWAA is still working on populating the roadmap.</i>	R
2	2B.02	<i>Transfer the value of CNPAs out of the federal portion and add to contingency.</i>	<i>FTA agreed to the CNPAs on November 6, 2012 and MWAA corrected the value of the CNPAs on November 28, 2012.</i>	Y	N	N	<i>The details of the accounting of the CNPAs were requested in FTA's November 6th letter and have yet to be submitted.</i>	R

KEY ITEM

Subtask 2A
Subtask 2B

CLIN 0002A – PMP Review
CLIN 0002 – On-Site Monitoring

LEGEND

PRIORITY (PR)
1- Most Critical
2- Critical
3- Least Critical

GRANTEE ACTION

D – Remedial Action Developed
A – Remedial Action Approved
I – Action Implemented

PMO CONTRACTOR STATUS

R – Review On-going
C – Completed – No further review required

Note – Items marked with a 'C' in the 'PMO Contractor Status' column will be dropped from future reports.

APPENDICES

APPENDIX A – LIST OF ACRONYMS

AAC	Agreement After Certificate
AMEP	Architectural/Mechanical/Electrical/Plumbing
ARRA	American Reinvestment and Recovery Act
ASSHTO	American Association of State Highway and Transportation Officials
ATC	Automatic Train Control
BFMP	Bus Fleet Management Plan
CAR	Corrective Action Request
CCC	Construction/Procurement/Installation Conformance Checklist
CD	Calendar Days
CDRL	Contract Deliverables Requirements List
CMU	Concrete Masonry Units
CNPA	Concurrent Non-Project Activities
CPM	Critical Path Method
CR	Communications Room
CTI	CTI Consultants, Inc.
CY	Calendar Year
DB	Design-Build
DCC	Design Conformance Checklist
DCN	Design Change Notice
DCR	Dulles Connector Road
DF	Direct Fixation
DGS	(Virginia) Department of General Services
DIAAH	Dulles International Airport Access Highway
<i>DQT</i>	<i>Design Qualification Testing</i>
DR	Deficiency Report
DTP	Dulles Transit Partners, LLC
DTR	Dulles Toll Road
DVP	Dominion Virginia Power
ETS	Emergency Trip Station
FFGA	Full Funding Grant Agreement
FIA	Fire and Intrusion Alarm
FTA	Federal Transit Administration
FTE	Full Time Equivalent
FY	Fiscal Year
HC	Heater Cable
HOT	High Occupancy Toll
IDW	Intrusion Detection Warning System
IFC	Issued For Construction
IFP	Issued for Proposal
IRR	Issue Requiring Resolution
KSA	KSA, INC – Producer of Concrete Crossties
MH	Manhole
MCI	A communication company now owned by Verizon

MEP	Mechanical, Electrical and Plumbing
MOT	Maintenance of Traffic
MWAA	Metropolitan Washington Airports Authority
NATM	New Austrian Tunneling Method
ORD	Operational Readiness Date
PDA	Pile Driving Analysis
PDR	Preliminary Design Review (7K Railcars)
PE	Preliminary Engineering
PMOC	Project Management Oversight Contractor
PMSS	Project Management Support Services
PMP	Project Management Plan
QA	Quality Assurance
QC	Quality Control
QPP	Quality Program Plan
RAMP	Real Estate Acquisition Management Plan
<i>RAP</i>	<i>Rail Activation Plan</i>
RCMP	Risk and Contingency Management Plan
RFC	Request for Change
RFMP	Rail Fleet Management Plan
RMP	Risk Management Plan
ROD	Revenue Operations Date
ROE	Right-of-Entry
ROW	Right-of-Way
RSD	Revenue Service Date (synonymous with Revenue Operations Date)
SCB	Sound Cover Box
SCC	Standard Cost Category
SCIL	Safety and Security Certifiable Items List
S&I	Service and Inspection
SOE	Support of Excavation
SSCD	Scheduled Substantial Completion Date
SSMP	Safety and Security Management Plan
SSWP	Site Specific Work Plan
STP	Surface Transportation Program
SWGR	Switch Gear
TBD	To Be Determined
TBS	Tie Breaker Station
TOC	Tri-state Oversight Committee
TPSS	Traction Power Substation
UR	Utility Relocation
VDOT	Virginia Department of Transportation
VTF	Vertical Test Facility (Corrosion Testing)
W&OD	Washington and Old Dominion
WFC	West Falls Church
WFCY	West Falls Church Yard
WMATA	Washington Metropolitan Area Transit Authority

APPENDIX B -- PROJECT OVERVIEW AND MAP

Project Overview

Date: *March 29, 2013* (reporting current through *February 2013* - Financials through *January 2013*)

Project Name: Dulles Corridor Metrorail Project – Extension to Wiehle Avenue

Grantee: Metropolitan Washington Airports Authority (MWAA)

FTA Regional Contact: Brian Glenn, P.E.

FTA Headquarters Contact: Dale Wegner, P.E.

Scope

- **Description:** MWAA The Project is the initial 11.7-miles of the LPA, which will run from the current Metrorail Orange Line near the West Falls Church (WFC) station to Wiehle Avenue in Reston, providing direct service to the commercial and office center of Tysons Corner. The Project will be constructed in or parallel to the Dulles Connector Road, Routes 123 and 7 through Tysons Corner, and the Dulles International Airport Access Highway (DIAAH). It will include five new passenger stations, one 2,300-car parking facility (provided through a joint development agreement at Wiehle Avenue Station), improvements to the existing WFC Service and Inspection Yard, tail tracks outbound of the interim terminus station at Wiehle Avenue, and the procurement of 64 rail cars.
- **Guideway:** Phase 1 is approximately 11.7 miles in length consisting of two tracks.
- **Stations:** There are five stations in Phase 1. Each station will include a kiss-n-ride area; bus drop-off facilities; station platforms with benches, canopies, ticket vending machines; and other amenities.
- **Support Facilities:** There will be a modification to the West Falls Church Yard and service building. A tail track will be constructed beyond the Wiehle Avenue Station.
- **Vehicles:** The Project will include the purchase of sixty-four vehicles for Phase 1 that will be procured by WMATA.

Ridership

The Project is estimated to carry 69,700 average weekday riders during opening year.

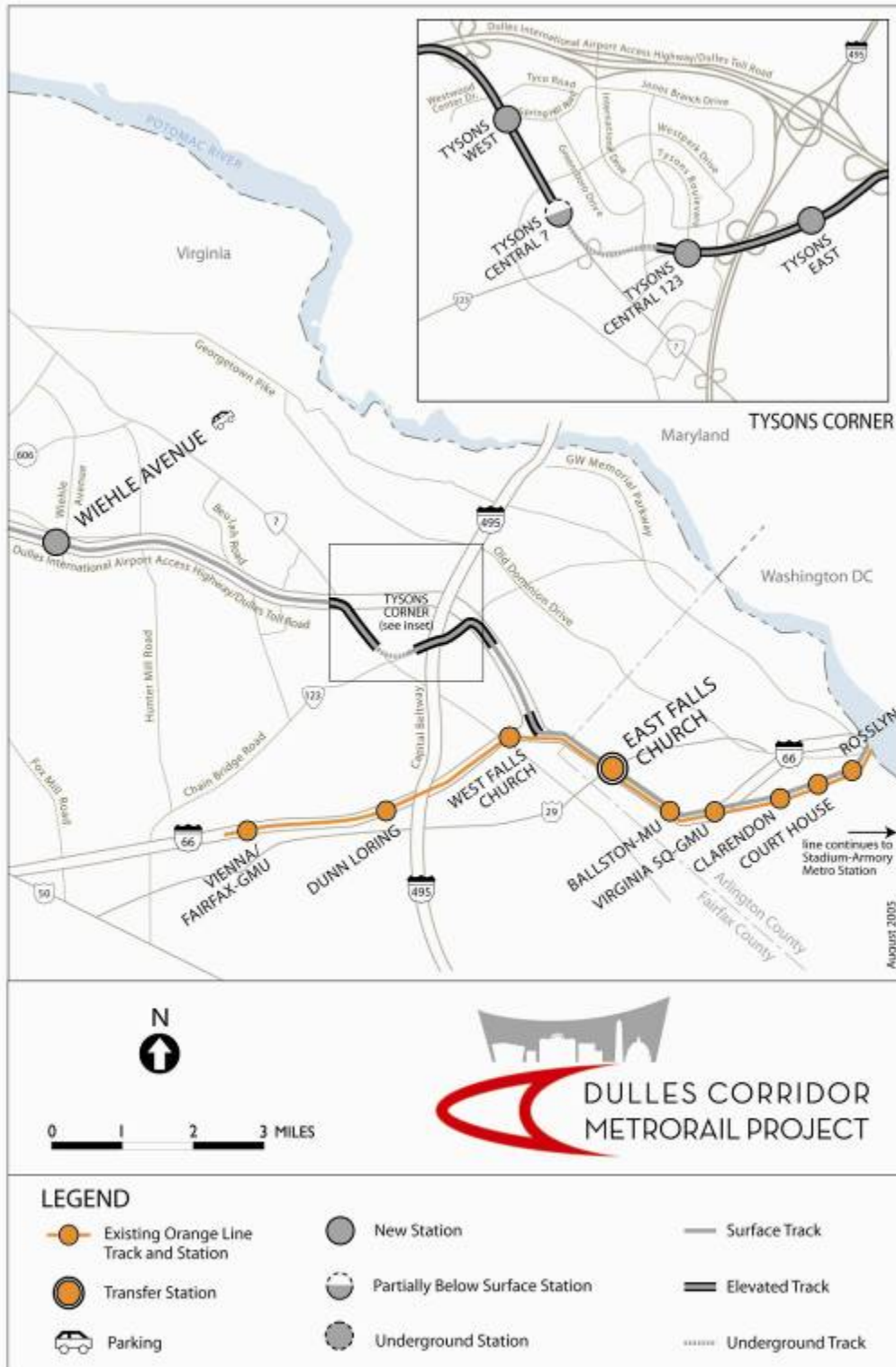
Schedule

06/10/04	Approval to Enter PE	2011	Estimated Rev Ops at Entry to PE
05/12/08	Approval to Enter FD	12/04/13	Estimated Rev Ops at Entry to FD
03/10/09	FFGA signed	12/01/14	Estimated Rev Ops at FFGA
01/10/14	Revenue Service Date (RSD) <i>as of January 25, 2013</i>		
88.0%	Percent Complete Construction <i>as of February 28, 2013.</i>		
69.0%	Percent Complete Time based on RSD of December 1, 2014 (based on FFGA)		
88.1%	MWAA's Estimate of Project Earned Value through <i>January 2013</i>		

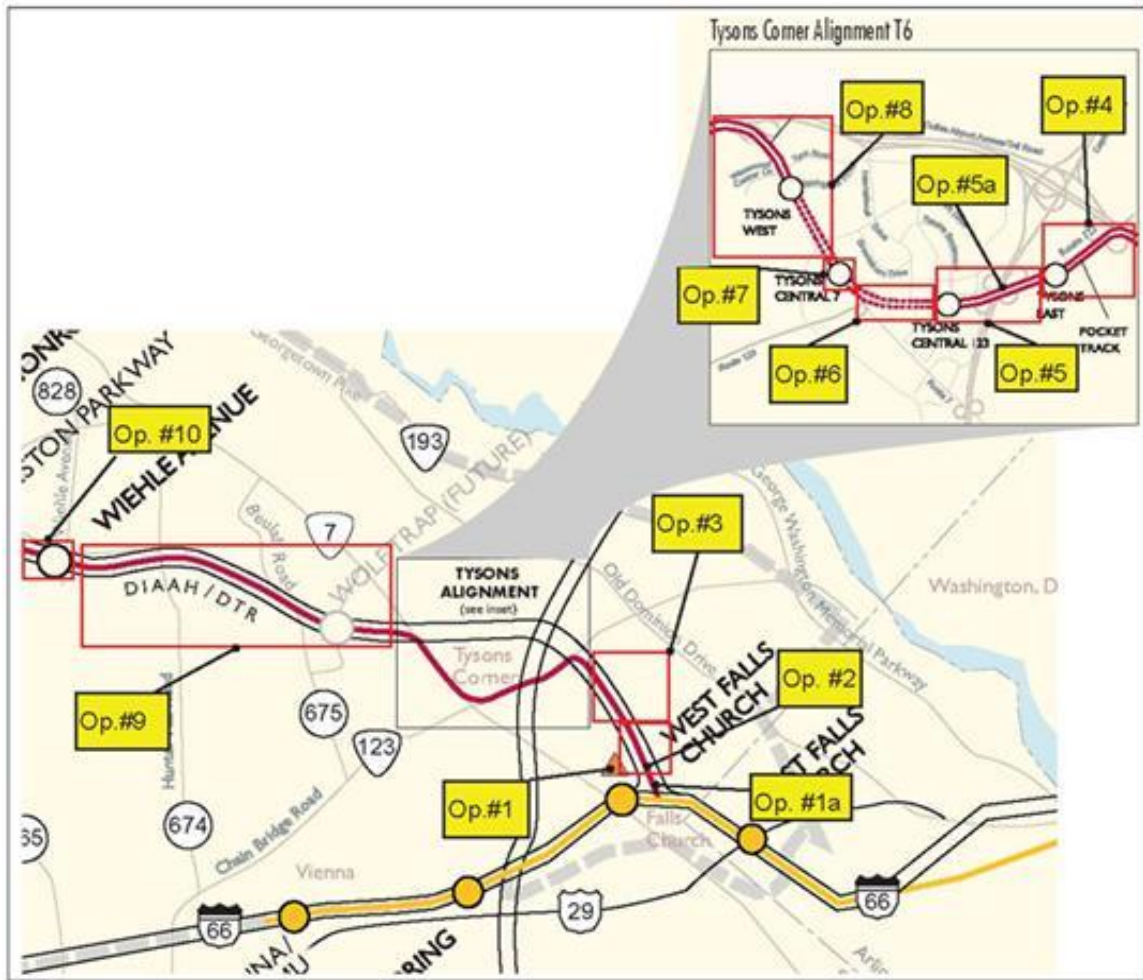
Cost

\$1.490 billion	Total Project Cost (\$YOE) at Approval to Enter PE
\$2.961 billion	Total Project Cost (\$YOE) at Approval to Enter Final Design
\$3.142 billion	Total Project Cost at date of report including \$510 million in Finance Costs
\$2.335 billion	Expenditures through <i>January 2013</i> from total project budget of \$3.142B
83%	Percent complete based on federal expenditures excluding contingency and finance charges through <i>January 2013</i> .
\$13.16 million	Total project contingency remaining (allocated and unallocated) through <i>January 2013</i> .

Project Map



Construction Operational Areas



APPENDIX C – MWAA SAFETY AND SECURITY CHECKLIST

Project Overview	Dulles Corridor Metrorail Project		
Project Mode (Rail, Bus, BRT, multimode)	Rail		
Project Phase (Preliminary Engineering, Design, Construction, or Start-up)	Design and Construction		
Project Delivery Method (Design/Build, Design/Build/Operate/Maintain, CMGG, etc)	Design/Build		
Project Plans	Version	Review By FTA	Status
Safety and Security Management Plan	3/20/12	4/20/12	Accepted. MWAA's SSMP Rev.9 dated March 2012 was submitted for review in March 2012 and accepted by the FTA on April 13, 2012.
Safety and Security Certification Plan			WMATA's SSCPP March 2012 Revision is included as Appendix E to MWAA's SSMP Revision 9, which was accepted by the FTA on April 13, 2012.
System Safety Program Plan	1/20/2011		In response to FTA's Safety and Security Oversight Audit of TOC/WMATA and TOC Triennial Review findings, WMATA submitted an updated SSPP dated January 20, 2011, which was approved by TOC on February 22, 2011 with minor comments to be addressed in the next revision.
System Security Plan or Security and Emergency Preparedness Plan (SEPP)			WMATA submitted a revised SEPP to TOC in March 2010. TOC approved the SEPP on August 2, 2010.
Construction Safety and Security Plan			Addressed in PMP Version 8 was submitted on May 1, 2012 and is under revision.

Safety and Security Authority	Y/N	Notes/Status
Is the grantee subject to 49 CFR Part 659 State Safety Oversight requirements?	Y	Tri-State Oversight Committee (TOC)
Has the State designated an oversight agency as per Part 659.9?	Y	Tri-State Oversight Committee (TOC)
Has the oversight agency reviewed and approved the grantee's SSPP as per 659.17?	N	An updated WMATA SSPP dated January 20, 2011 was approved by TOC on February 22, 2011.
Has the oversight agency reviewed and approved the grantee's Security Plan or SEPP as per Part 659.21?	Y	Approved on August 2, 2010
Did the oversight agency participate in the last Quarterly Program Review Meeting?	Y	TOC had a representative at the November 9, 2011 QPRM.
Has the grantee submitted its safety certification plan to the oversight agency?	N	Plan in progress. TOC participates in monthly meetings.
Has the grantee implemented security directives issues by the Department Homeland Security, Transportation Security Administration?	N	WMATA will be operator.

SSMP Monitoring	Y/N	Notes/Status
Is the SSMP project-specific, clearly demonstrating the scope of safety and security activities for this project?	Y	
Grantee reviews the SSMP and related project plans to determine if updates are necessary?	Y	
Does the grantee implement a process through which the Designated Function (DF) for Safety and DF for Security are integrated into the overall project management team? Please specify.	N	WMATA will be operator.
Does the grantee maintain a regularly scheduled report on the status of safety and security activities?	N	WMATA will be operator.
Has the grantee established staffing requirements, procedures and authority for safety and security activities throughout all project phases?	N	WMATA will be operator.
Does the grantee update the safety and security responsibility matrix/organizational chart as necessary?	N	WMATA will be operator.
Has the grantee allocated sufficient resources to oversee or carry out safety and security activities?	N	WMATA will be operator.
Has the grantee developed hazard and vulnerability analysis techniques, including specific types of analysis to be performed during different project phases?	Y	

Does the grantee implement regularly scheduled meetings to track to resolution any identified hazards and/or vulnerabilities?	Y	
Does the grantee monitor the progress of safety and security activities throughout all project phases? Please describe briefly.	Y	Design and Construction only. WMATA participates
Does the grantee ensure the conduct of preliminary hazard and vulnerability analyses? Please specify analyses conducted.	N	MWAA's letter of September 7, 2011 to WMATA indicated that they believed that such an evaluation is not required but that they would support WMATA if it chooses to conduct such an analysis.
Has the grantee ensured the development of safety design criteria?	Y	
Has the grantee ensured the development of security design criteria?	Y	
Has the grantee ensured conformance with safety and security requirements in design?	Y	
Has the grantee verified conformance with safety and security requirements in equipment and materials procurement?	Y	
Has the grantee verified construction specification conformance?	Y	
Has the grantee identified safety and security critical tests to be performed prior to passenger operations?	Y	In progress.
Has the grantee verified conformance with safety and security requirements during testing, inspection and start-up phases?	N	After SSCD
Does the grantee evaluated change orders, design waivers, or test variances for potential hazards and /or vulnerabilities?	Y	
Has the grantee ensured the performance of safety and security analyses for proposed work-arounds?	Y	
Has the grantee demonstrated through meetings or other methods, the integration of safety and security in the following: • Activation Plan and Procedures • Integrated Test Plan and Procedures • Operations and Maintenance Plan • Emergency Operations Plan	N	In progress with WMATA.
Has the grantee issued final safety and security certification?	N	
Has the grantee issued the final safety and security verification report?	N	

Construction Safety	Y/N	Notes/Status
Does the grantee have a documented/implemented Contractor Safety Program with which it expects contractors to comply?	Y	
Does the grantee's contractor(s) have a documented company-wide safety and security program plan?	Y	DTP's Construction Safety, Health and Security Plan accepted on January 6, 2009.
Does the grantee's contractor(s) have a site-specific safety and security program plan?	Y	
Provide the grantee's OSHA statistics compared to the national average for the same type of work. If the comparison is not favorable, what actions are being taken by the grantee to improve its safety record?	Y	DTP has recorded 465 first aid cases and six lost time cases in 12.163 million project man-hours, which is below the national average.
Does the grantee conduct site audits of the contractor's performance versus required safety/security procedures?	Y	

Federal Railroad Administration	Y/N	Notes/Status
If shared track: has grantee submitted its waiver request application to FRA? (Please identify specific regulations for which waivers are being requested)	N/A	Heavy Rail Transit Project. No FRA involvement.
If shared corridor: has grantee specified specific measures to address shared corridor safety concerns?	N/A	
Is the Collision Hazard Analysis underway?	N/A	
Other FRA required Hazard Analysis – Fencing, etc.?	N/A	
Does the project have Quiet Zones?	N/A	
Does FRA attend the Quarterly Review Meetings?	N/A	

APPENDIX D – PMOC TEAM PERFORMING THIS REVIEW

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