

**COMPREHENSIVE MONTHLY REPORT**

**April 2012**

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

June 6, 2012

**PMOC Contract Number:** DTFT60-09-D-00016

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

**OPs Referenced:** 01, 25

**Hill International, Inc.**

One Penn Square West

30 South 15<sup>th</sup> Street

Philadelphia, PA 19102

**PMOC Lead:** [REDACTED]

**Length of Time PMOC Assigned to Project:** 11.5 years

**Length of Time PMOC Lead Assigned to Project:** 4.0 years

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## EXECUTIVE SUMMARY

The Project Management Oversight Contractor (PMOC) met with Metropolitan Washington Airports Authority (MWAA) on *May 9, 2012* to conduct a monthly progress meeting (*in conjunction with the FTA Quarterly Progress Meeting for the period January 2012 through March 2012*) for work performed in April 2012. The full time on-site PMOC attended various project meetings and site tours throughout this reporting period and *participated with MWAA and FTA representatives in a complete field tour of the Project on the morning of May 9, 2012*. Additional information for this report was obtained from MWAA during the *second and third weeks of May 2012*. 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. Sixty-four additional rail cars are required to provide service for 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 Initial Operating Segment (extension to Wiehle Avenue). Through Federal fiscal year (FY) 2011, Congress has appropriated \$520.28 million in Section 5309 New Starts funds for the Project. The FTA has awarded \$520,282,364 in Section New Starts and \$75,000,000 in STP funds to date for the Project. *The FY 2012 Appropriation is \$90,832,000 in Section New Starts funds.*

### 2. Project Status Summary

The *FTA and PMOC* met with MWAA on *May 9, 2012* to conduct a *quarterly* progress review meeting *and supplemental information was obtained from MWAA during the following week*. The status of information is as of *April 30, 2012*, 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.
- **Rail car Procurement** - The 7K Monthly Progress Review Meeting No. 20 was held on *May 10, 2012*. The Preliminary Design Review (PDR) phase was completed on March 16, 2012 compared to the baseline completion date of March 30, 2011. The current Final Design Review (FDR) completion date is *June 15, 2012* compared to the *mitigation schedule* completion date of *May 11, 2012*, a slippage of *34 days*. FDR meetings have been completed

*with the exception of train wayside equipment.* The submission and acceptance of final design documentation remains.

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 with a June 12, 2015 delivery date for the 64<sup>th</sup> railcar, which was more than six months beyond the FFGA completion date for the DCMP. MWAA informed the FTA's Regional Administrator for Region III by letter on January 31, 2012 of the delay.

- **Design progress** - Overall project design remains at 99% complete as of the end of *April* 2012. Revised designs for the Tysons West Station pedestrian bridges and pavilions were completed and permitted on March 27, 2012. *However, 100% design of the Tysons West Kiss & Ride Lot is not expected until July 2012. The revised designs for the Tysons Central 123 Station pedestrian bridges and pavilions were submitted to DGS on May 1, 2012 and permits are expected by June 30, 2012. A code modification package for the Wiehle Avenue pedestrian bridge and pavilion is expected to be submitted by May 30, 2012 to add an emergency call station and the permit is expected by June 30, 2012.*
- MWAA issued a NTP on January 24, 2011 to an independent third-party consultant, Battelle, to review Alstom's safety analysis of the Generation 4 track circuit modules proposed for use on the Dulles Extension. r MWAA reported during the April 10, 2012 monthly meeting that all document reviews have been completed and a few Battelle draft written findings are currently being reviewed by Alstom for factual accuracy. MWAA also reported that the new Alstom senior management continues to provide improved support to the review process. *MWAA reported during the May 9, 2012 quarterly review meeting that Battelle still expects to submit its draft "Safety Analysis Review and Assessment" report to MWAA for review in late June , 2012.* Following this final review, MWAA will meet with Battelle and discuss a revised schedule for the "Final Assessment Report" submission to the FTA.
- **Construction progress** is broken into two components: utility relocation (UR), which is 99% complete, and design-build (DB) construction, which is approximately 72% complete. Significant accomplishments for *April* included significant segmental box girder installation on the Tysons West Guideway with Launch Girder Truss LG2; major foundation, wall, track-bed, platform, column and mezzanine work on all five stations; both ballasted and direct fixation trackwork installation on the Tysons East Guideway, and along the DCR and DIAAH and Wiehle Avenue tail tracks; and significant progress with the construction of Traction Power Substations, Communications and Automatic Train Control Equipment Rooms and associated factory fabrication and delivery and installation of equipment.

CONSTRUCTION PROGRESS THROUGH APRIL 2012			
GUIDEWAYS AND TRACKWAYS	% COMPLETE	STATIONS	% COMPLETE
Tysons East Guideway	99%	Tysons East	50%
Tysons West Guideway	93%	Tysons Central 123	45%
O-3 Trackway	95%	Tysons Central 7	32%
O-9 Trackway	95%	Tysons West	31%
Systems	10%	Wiehle Avenue	55%
Trackwork	31%		

- **The DTP Schedule Update** with a data date of *March 25, 2012* “Mitigation Schedule” showed a -13 calendar day loss as compared to the -27 calendar day loss reflected in the *February 25, 2012* update. MWAA and DTP continue to negotiate the mitigation schedule related RFC’s 160 and 161 costs and *anticipated* a lump sum settlement in *late April 2012*. MWAA reported during the *May 9, 2012* monthly meeting that they have agreed to the costs *and the scope and the final package is being prepared for signature*.

With regard to the West Falls Church Yard (WFCY) completion date, DTP’s schedule update of *March 25, 2012* reflected a WFCY completion date of *January 9, 2014* which represents a +22 calendar day improvement from the previous month. *Subsequent to the submission of the March 25<sup>th</sup> schedule update, DTP and MWAA agreed to a completion date for the WFCY of December 20, 2013.*

- **Budget** status as of *March 25, 2012* indicates that \$1,848,886,505 (69%, excluding the remaining contingency and finance charges) has been expended of the \$3,142,471,634 budget total. MWAA reports \$233,083,097 (98%) of the available contingency for the first seven contingency milestones has been drawn down to date with a remaining contingency balance of \$3,416,902 (2%) available through the *seventh contingency phase*. *The current estimate of the contingency available at the end of construction is \$11.28M.* **The federal portion of the Allowance Items recommended for award and yet to be awarded is estimated to be \$49.0 million over budget. This amount has not yet been added to the Contingency Obligation Table. FTA instructed MWAA that this was unacceptable.** MWAA acknowledges a \$71.8 million in available Finance Charges that could be added to the contingency to resolve this potential deficit. In addition, the PMOC has been reviewing changes to the project scope since Preliminary Engineering that could be considered betterments (non-FFGA) or Concurrent Non-Project Activities (CNPAs), and met with MWAA after the April 10, 2012 Update Meeting to discuss their findings. MWAA *completed* their assessment of Additional Scope – non-FFGA items (CNPAs) and *submitted* their results to the PMOC/FTA *on April 24, 2012*. *Following review and approval, the Airports Authority would transfer the cost for the Non-FFGA Scope items from the FFGA Budget and Estimate at Completion (EAC), and replenish the contingency accounts (Federal and Non Federal) establishing a separate account with an “additional Funding Source” to capture the specific Non-FFGA scope. FTA asked for additional information on MWAA’s proposal at the May 9 Quarterly meeting.*

- MWAA’s estimate of the **Earned Value** for the Project through *March* is 74.1%.

- **Risk** -- 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.

- The **Full Time Equivalents** (FTE) estimated total for *April* is *1,563*, which is a decrease of *127* from the *March* actual of *1,690*. A fluctuation is to be expected with the winding down of design and civil construction and the ramping up of systems installation and testing. The PMOC will continue to monitor this fluctuation to ensure that the project is appropriately managed to support the current “Mitigation Schedule.”

- Core Accountability Items

<b>FFGA-MWAA Core Accountability Items</b>			
<b>Project Status:</b>		<b>Original at FFGA:</b>	<b>Current Estimate*:</b>
<b>Cost</b>	Cost Estimate	\$3.142B	\$3.142B
<b>Contingency</b>	Unallocated Contingency		
	Total Contingency (Allocated plus Unallocated)	\$297.76M	\$11.288M
<b>Schedule</b>	Revenue Service Date	<i>December 1, 2014</i>	<i>December 27, 2013</i>
<b>Total Project Percent Complete</b>		Based on Expenditures**	68%
		Based on Earned Value	74.1%
<b>Major Issue</b>	<b>Status</b>	<b>Comments/Action/Planned Action</b>	
<b>Contingency/CNPAs (Additional Scope non-FFGA)</b>	Project Partners have added additional activities to the project that will increase the project cost and are not part of the FFGA-funded scope of work.	The FTA, PMOC and MWAA met on April 10, 2012 to review their respective lists of CNPAs (additional scope-non-FFGA); MWAA submitted their list on April 24, 2012. At the May 9, 2012 QPRM, the FTA requested that MWAA expand the descriptions and justifications and resubmit their CNPA list.	
<b>Date of Next Quarterly Meeting:</b>		<i>August 22, 2012</i>	

Note: \* Through March 2012

\*\* Excluding remaining contingency and finance charges

### 3. PMOC's Assessment of Project Status

To address potential budget overruns, the PMOC concludes that MWAA needs to replenish the Project contingency and actively pursue items that may be additional scope (non-FFGA) and billed to the responsible parties. It is the PMOC's opinion that the change orders for WMATA-

requested ETS and TPSS Remote Monitoring systems are outside MWAA's Intergovernmental Agreement with WMATA, are additional scope (non-FFGA) to the project, and should be funded outside the FTA project. The PMOC's current assessment of CNPAs (non-FFGA additional scope) adds up to approximately \$94 million. This matter was addressed in follow-up meetings on February 2, 2012, March 7, 2012 and April 10, 2012 between MWAA and the PMOC. Efforts continue to arrive at an agreement as to what changes since PE constitute FFGA versus non-FFGA expenditures. MWAA acknowledges that the FTA and VDOT funding is fixed and that the local funding partners each bear a percentage of the non-FFGA scope costs.

The estimated cost overruns of the Allowance Items (*\$49.0 M*) indicate that there is an immediate need to replenish the project contingency. **Given the forecasted magnitude of the Allowance Items costs, the federal portion of the Project is, in the PMOC's opinion, on track to exceed the FFGA budget, if the Concurrent Non-Project Activities (CNPAs) are not removed.** *The transfer of the \$71.8M in savings from the Finance Charges to Contingency can be used to manage the shortfall, regardless of the final disposition of the CNPAs.* The PMOC continues to review both the use of contingency and the changes that can be considered CNPAs to determine the possible shortfall in contingency. MWAA reported during the March 7, 2012 monthly meeting that it would be replenishing the project contingency. PMOC again met with MWAA *after the April 10 Update Meeting* to review its findings with regard to CNPAs. Based on those discussions, MWAA *submitted* their final list of CNPAs through February 2012 to the FTA *on April 24, 2012.*

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 *March 25, 2012* shows a *-13* calendar variance to the contract schedule and now reflects an SSCD of *September 5, 2013.* *M Associated cost negotiations have been completed and the final package is currently being prepared for signature.*

DTP has incorporated the West Falls Church Yard construction into the mitigation schedule with a completion date of *December 20, 2013* 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 ongoing struggle to address the impacts of the March 2011 earthquake and tsunami in Japan continues to be a concern to the PMOC. On December 21, 2011, WMATA approved a mitigation contract schedule that forecasts a delivery date of the 64<sup>th</sup> DCMP rail cars on June 12, 2015. This schedule does not meet the FFGA Revenue Service Date (RSD) date of December 1, 2014. MWAA informed the FTA Regional Administrator of the delay 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 has 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.



## 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. It is the PMOC's opinion that the staffing levels and technical capabilities are still adequate. *MWAA has hired Mr. William Kerrigan as Manager of Project QA/QC and Safety, replacing the retired Jon Christensen.*

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.

#### 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 *March 2012*. In this update DTP reported a possible delay of *-13* calendar days to the SSCD forecasted by DTP to occur on September 5, 2013. DTP's Critical Path No. 1 in their *March 2012* Schedule Update originates with the *LG #2* precast segmental erection of the Tysons West Aerial Guideway. MWAA completed its schedule review and, accepted the schedule and critical paths with some comments and exceptions on *April 30, 2012*.
- MWAA continues to monitor expenditures to date and to update the estimate at completion. MWAA reports that through *April, 2012*, MWAA has drawn down \$250,650,339 of the Phases 1 through 8 *contingency* of \$251,000,000. The contingency utilization reflects expended costs. *The latest, incomplete information for April, indicates there is an additional \$38.94 million in obligated contingency of a budget of \$46.77 million in Phases 9 through 12. This leaves a balance, as of the end of April, of \$8.18 in remaining contingency.*

- MWAA submitted the latest revision of the RCMP (Revision 3) to the FTA on March 28, 2012 and the 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 *April 2012* there has been a cumulative total of *10,065,189* hours worked with four lost time accidents.

Revision 5 of the Safety and Security Certifiable Items List (SCIL) has been reviewed and all comments have been resolved. DTP’s final resubmission on November 18, 2011 was subsequently accepted by MWAA. The SCIL for K99 (West Falls Church Yard) was received by MWAA on December 21, 2011 separately from the entire SCIL for review and comment. Informal comments for the K99 SCIL were provided to DTP on February 14, 2012 and a meeting to discuss the comments was conducted on March 26, 2012. *Follow-up comments were officially sent to DTP on May 11, 2012 and the comment resolution process continues.* Once the K99 review is completed, DTP will submit Revision 6 of the SCIL in its entirety with K99 included.

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 that MWAA accepted on December 6, 2010. The FTA and PMOC met with MWAA, WMATA, and DTP on April 29, 2011 to discuss development of a revised SSMP to integrate WMATA and MWAA systems testing, interface management and pre-revenue operations. WMATA has created a “Start-up Steering Committee” and has hired the Delcan Corporation to assist with that effort. MWAA published its draft SSMP Revision 9 on September 30, 2011. The draft provided a placeholder as Appendix E for WMATA’s input. A follow-up meeting was conducted with all parties on January 27, 2012 to review the progress. WMATA completed its revision of the 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 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 *first* quarter of *2012* on *April 27, 2012*.

## 2. Project Scope

### a. Design Status

Except for the Tysons 123 Station pedestrian bridge and pavilion, DTP has completed design work with the receipt of permit approvals on the station designs. Issued for Construction (IFC) drawings for all five stations have also been completed. WMATA review and approval of ATC submittals continues to meet the needs of the project.

*The Tysons Central 123 pedestrian bridge and pavilion Civil/Structural permit was approved May 9, 2012. The AMEP drawing package was submitted to DGS on April 20, 2012 and approval is anticipated in early June 2012. The late issuance of IFP and IFC design packages has had no apparent adverse impact on the project's critical path, due in part to DGS permitting of partial packages.*

### b. Bidding and Construction Status

Through *March 2012*, DTP has awarded \$416,310,617 worth of the \$437,278,511 federally funded Allowance Items Budget to subcontractors and suppliers with an \$85,152,094 overrun for 32 of 36 sub-contract packages awarded thus far. In addition, MWAA has Allowance Items recommended for Award, but not yet awarded, worth \$150.5 million, which is an additional \$49.0 million over budget. The \$49.0 million does not include the remaining allowance items yet to be awarded, including Pavilion and Pedestrian Finishes (C3), Specialties (including signage) (C3), Pedestrian Bridge Installation (C5), Installation of Public Art (C7), Spare Parts (C11), and Traction Power Supply – WP.10C [Instrument and Fiber Optic Cable] (C13).

Utility relocation is 99% complete, and DB construction is approximately 72% complete. Remaining utility relocation involves the installation of traction power ductbank and manholes for bridge crossings along the DIAAH from Route 7 to Route 267 and along the DCR between Route 123 and the WMATA K-Line.

The following are the major accomplishments of the DB contractor during *March 2012*:

- **Operations Areas OP-1, OP-2 and OP-3 (I-66/DCR/Laydown Area 1)** – *Continued installation of acoustical barriers on the O-1 guideway approach walls. Continued installation and testing of ATC cabling and equipment during non-revenue hours at the K-line. Continue installing FIA and Tel/LAN conduits, cables and equipment in the Fisher Avenue TCR and Communications Rooms. Continued installation of the special track work and ballasted track west of the WFCY lead tunnel in the Dulles Connector Road (DCR) median. Completed invert slab construction of Stage 2B of the WFCY Cut and Cover Tunnel in the right lane of the EB DCR. Completed installation of waterline and fire hydrant outside of the WFCY. Continued static testing of the traction power and ATC at the Plainfield and Baldwin locations. Continued installation of trackside ATC cables and making terminations in the median of the DCR. The subcontractor (Tuner-Whiting) for the WFCY S&I building and Sound Cover Box began mobilizing to the site.*

- **Operations Area OP-4/5A (Tysons East Guideway/Station/I-495 Crossing)** – Completed demobilizing gantry crane LG1. Continued cable trough and track plinth construction on the aerial guideway between the Tysons East Station and I-495. Continued installation of plumbing in service rooms. Continued MEP installations. Continued installation of escalator wiring and controls. Completed CMU installation of mezzanine service rooms. Continued installation of duct banks to TPSS #3. Continued MEP rough-in at the precast TCR building at the platform level. Continued foundation walls, elevator pits and piers for the pedestrian bridge and pavilion. Continued installing raceways in the Station AC switchgear room and on the aerial guideway from the TBS #3 site.
- **Operations Area OP-5 (Tysons Central 123 Station)** – Continued grouting precast platform panels. Completed metal decking on structural steel at the mezzanine level and TPSS #4 roof. Began rebar and form work for the concrete mezzanine deck. Continued raceway installation for the AC switchgear and battery rooms. Installing the HVAC ductwork at the platform level. Continued CMU walls at the platform and intermediate levels.
- **Operations Area OP-6 (Laydown Area #6/NATM Tunnel/East Cut & Cover and Ventilation Structure)** – Continued forming, rebar installation and pouring the fan room roof for the East Ventilation Structure. Continued interior MEP installations at the East Vent Structure building. Installed nozzles for fans at the East Vent Structure.
- **Operations Area OP-6 (West Cut and Cover Tunnel)** – Continued the construction of columns and walls of the fan room and interior walls of the West Vent Structure.
- **Operations Area OP-7 (Tysons Central 7 Station)** – Continued forming and pouring barrier walls adjacent to Route 7. Continued retaining wall construction at the entrance to TPSS #5. Continued raceway installations for the AC and communications cables under the platform. Completed driving piles at the north and south pedestrian bridge pavilions and started the foundation construction. Continued duct back construction for TPSS #5. Completed track slab construction at the west end of the station. Started pulling rail strings through the station on the IB track from the tunnel.
- **Operations Area OP-8 (Tysons West Station/Guideway)** – Continued guideway segmental girder erection with Truss LG2 completing spans 44-IB, 44-OB, 45-IB, 45-OB, 46-IB, 46-OB, 47-IB, 47-OB, 48-IB and 48-OB for a total of seventy-two completed to date. Continued rebar and concrete construction of the slab on grade at the ground level of Tysons West Station. Continued installing acoustical panels on the elevated guideway between Gosnell Road and Westwood Center Drive. Continued CMU wall construction at the station ground and mezzanine levels. Began installation of station precast panels. Continued installing traction power raceways on the aerial guideway and piers between Piers 37 and 39.
- **Operations Area OP-9 (DIAAH)** – Continued construction of retaining walls on both OB and IB sides between Hunter Mill Road and the Tysons West Abutment B. Delivered and set the TCR facilities at TPSS #7 and TPSS #11. Continued ballasted track construction between the W&OD Trail and Wiehle Avenue. Continued installation of

emergency crossover gates between DIAAH and the Toll Road. Continued installation of screen walls panels at TPSS #10. Continued installation of racks in the cable vault at TPSS #10. Completed fencing and hydroseeding at Pond #11. Continued installation of track under drains in the median of the DIAAH between Trap Road and Route 7.

- **Operations Area OP-10 (Wiehle Avenue Station/Laydown Area 13)** – Continue MEP installations at the east and west platform service rooms and at the mezzanine level. Continued installing equipment pulling cables at the station switchgear and battery rooms. Continued installation of cables in the TCR. Completed foundations and walls at the south side of the Dulles Toll Road for the pedestrian bridge and pavilion. Continued forming for the pier cap at the intermediate pedestrian bridge pier 2 at the north side of the station. Continued slab construction of land bridges at the Williams Transco pipelines and retaining walls west of the Wiehle Avenue Station. Continued installation of sanitary sewer lines on the north side of the station. Installed stainless steel cladding on the elevator shaft. Continued installing roof membranes on the vaulted roof.
- **Laydown Area 10 (Pre-cast Yard)** – Continued staging and load out of precast segments for Tysons East and Tysons West Guideways.

All Intergovernmental Agreements and Agreements with utility companies were executed prior to the FFGA.

**c. Real Estate**

Real Estate Acquisition continues to keep ahead of construction requirements, often resorting to ROE to gain access to required parcels. Through April 2012, 97 of the 102 parcels required for the Project have been acquired. The table below summarizes acquisition activities for the Project through April 2012.

**PARCELS ACQUIRED<sup>1</sup>**  
(Number of parcel packages)

LOCATIONS	TOTAL	Period			To Date		
		Planned <sup>2</sup>	Actual	Var	Planned <sup>2</sup>	Actual	Var
Route 66 / DCR	1	0	0	0	1	1	0
Route 123	23	0	0	0	23	21	(2)
Route 7	52	0	0	0	52	49	(3)
DIAAH	26	0	0	0	26	26	0
<b>TOTAL</b>	<b>102</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>102</b>	<b>97</b>	<b>(5)</b>

- 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.

## Condemnation Status

Thirty-nine parcel packages have been obtained with the filing of thirty-three Certificates of Take. *In April 2012, one parcel moved towards an Agreement after Certificate (Parcel 125/JBG 1831 Wiehle Avenue, LLC), one case continues to work towards an Agreement after Certificate (Parcel 109, AG/ARC Plaza America), and two other cases continued to move toward having the Final Order entered for Agreements After Certificate (Parcel 35, Embassy Suites and Parcel 28, Stohlman).*

### **d. Utility Coordination**

Utility relocation work continued through *April 2012* and is considered to be 99% complete. DTP's utility relocation design team continues to address conflicts or field conditions when required and to coordinate all modifications with the A&R D-B contract requirements. Installation of facilities for each third party utility has been completed in Tysons Corner and all utility companies have completed the local tie-in conduits and cables required to modify their circuits in compliance with the overall Project utility design. All UR work along Route 7 is complete.

Specific utility relocation work completed and continuing through *April 2012* includes the following:

- **Dulles Connector Road (DCR) East – (K-Line to Route 123)** – *Lane continues punch list work on the traction power duct banks. DVP continued pulling and splicing 34.5 KV traction power cables in the DCR median between TPSS #1 and TPSS #2.*
- **Route 123 (DCR to Route 7)** – *No work in this area in April. Punch list work remains.*
- **Route 7 (Tyco/Westwood to Dulles Toll Road)** – *DVP continued installing conduits, hand holes and switch pads at the Tysons West Station. DVP continues racking and splicing cable at TPSS #6. DVP continues installing 34.5kv cables in duct banks on EB Route 7 near TPSS #6.*
- **DIAAH West -- (Route 7 to Wiehle Avenue)** – *Lane completed punch list work on traction power duct banks.*

### **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 Board approved the award of a contract and a sharing of development costs with MWAA at its May 27, 2010 meeting. The MWAA Board agreed at its June 2, 2010 meeting to share the development costs associated with the railcar procurement equally with WMATA.

WMATA awarded a contract to Kawasaki on July 27, 2010. The manufacturer's proposed schedule showed the 64<sup>th</sup> 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. Thus, the contract indicated that the 64<sup>th</sup> rail car would be conditionally accepted on January

15, 2015 as an early completion date, which did not comply with the FFGA date of December 1, 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.

The Conceptual Design Review phase 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. At the 7K Monthly Progress Review meeting held on *May 2, 2012*, Kawasaki reported that *it anticipates that all documentation required for the Final Design Review (FDR) phase will be submitted by June 15, 2012* compared to the original baseline completion date of October 24, 2011, *which represents a 161-day delay*. In order to mitigate this loss, Kawasaki has been performing work at risk pending completion of the FDRs.

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 64<sup>th</sup> 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. *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. It has also been reported that the approval of the Master Test Plan is now anticipated to be completed by May 31, 2012, 113 calendar days beyond the mitigation schedule. The completion of Final Design Reviews is now anticipated to be on June 30, 2012, 100 calendar days beyond the mitigation schedule.*

The contractual milestones for this railcar procurement are:

Activity	Original Baseline Schedule Date	Mitigation Schedule Date	Actual Date
Notice to Proceed	July 12, 2010	---	August 16, 2010
Preliminary Design Review Submission	March 31, 2011	March 31, 2011	March 31, 2011
Preliminary Design Review Complete	May 1, 2011	January 18, 2012	March 16, 2012
Approval of Master Test Plan	August 23, 2011	February 7, 2012	
Approval of A-Car Mock-up	October 24, 2011	March 8, 2012	<i>April 24, 2012</i>
Final Design Review Submission	October 31, 2011	February 1, 2012	<i>February 1, 2012</i>
Final Design Review Complete	December 1, 2012	March 22, 2012	
Carbody/Truck First Article Inspection Approval	March 30, 2012	August 1, 2012	
Delivery of 4 pilot cars	September 16, 2013	February 20, 2014	
Conditional acceptance of 4 pilot cars	March 16, 2014	August 14, 2014	
Conditional acceptance of 64 <sup>th</sup> car	January 15, 2015	June 12, 2015	

WMATA has developed an interim operations plan for dealing with the delay. 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 8 WMATA Quarterly meeting, WMATA pledged to meet with FTA to review alternative operating plans.*

#### **f. Safety and Quality Status**

MWAA participated in *four* safety walk downs with DTP during the month of *April*. All were related to Design-Build work. As of *April 30, 2012*, DTP had logged *10.065* million project man-hours with *315* first aid cases and four lost time cases. There have been a total of *700* incident investigation reports, *84* utility hits and *15* vehicular accidents.

Revision 5 of the Safety Critical Items List (SCIL) was reviewed and all comments resolved. MWAA received the SCIL for K99 (West Falls Church Yard) on December 21, 2011, separately from the entire SCIL for review and comment. MWAA provided comments back to DTP on the K99 SCIL on February 14, 2012 and a meeting to discuss the SCIL was conducted on March 26, 2012. *Follow-up comments were officially sent to DTP on May 11, 2012 and the comment resolution process continues.* Once the K99 review is completed, DTP will submit Revision 6 of the SCIL in its entirety with K99 included.

DTP and MWAA continue to meet every two weeks 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. The FTA and PMOC continue to express concern with the lack of progress on both the DCC and CCC submissions. In recent months, all partners have exchanged correspondence on these



concerns and have been working together to address *them*. DCC No. 7 which has been revised twice was finally accepted on April 23, 2012. Submission No. 8 *is anticipated on June 1, 2012*.

A preliminary walk-down of K98 (K-Line Tie-in) was conducted by MWAA, WMATA, DTP and the PMOC on December 14, 2011 in an effort to refine the CCC process and expectations of each partner prior to the CCC No. 4 submission. It was a good effort and helped identify what documentation support MWAA and WMATA would need from DTP to validate sign-off acceptance. CCC No. 4 covering the K98 interface was submitted on March 19, 2012 with backup records *and was reviewed and returned to DTP with comments on May 14, 2012*. This CCC is intended to be the model for the remaining construction submissions *and remains a work in progress*.

It still appears to the PMOC that two DTP staff (one full time and one part time) tasked with managing the SCIL and sign-offs is still insufficient to adequately manage this important process. FTA suggested to MWAA on March 7<sup>th</sup> that it may be time for the MWAA CEO to get involved in this matter.

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. The SCWG held its regular monthly meeting *on May 15, 2012*.

MWAA transmitted Revision 5 of the DTP System Safety/Security Certification Management Plan to the FTA on December 8, 2010. MWAA submitted its Safety and Security Management Plan, Revision 8, to the FTA on February 17, 2011. An FTA/PMOC Safety/Security Program Review Meeting was conducted with all stakeholders on April 29, 2011. FTA explained the requirement for a complete SSMP for the Dulles Corridor project that would carry through start-up, pre-revenue operations and to the Revenue Service Date. MWAA and WMATA agreed to jointly develop a revised SSMP that will 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. A follow-up meeting was conducted with all parties on January 27, 2012 to review the progress made thus far. 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 *April 2012*, MWAA *and DTP* performed the following QA audits/surveillances:

- *F. H. Paschen (Station Finishes): DTP/MWAA conducted an audit on April 4, 2012. There were two observations. A report is expected in late May 2012.*

- *DTP Environmental: MWAA conducted an audit on April 11, 2012. There were eleven recommendations. A report was issued on April 30, 2012 and a response is due in late May 2012.*
- *Turner Construction (Shell Enclosures): DTP/MWAA conducted an audit on April 17, 2012. There were no issues. A report will be issued and the audit will be closed in late May 2012.*
- *Special Inspection, CTI, QA Program: MWAA conducted an audit on April 25, 2012. There were two observations. A report will be prepared in by late May 2012.*
- *Processing Subcontractor/Supplier Submittals: MWAA conducted a surveillance on April 25, 2012. There were ten observations. A report has been prepared and will be issued following a meeting with DTP in late May.*

**The MWAA QA Audit and Surveillance Schedule through June 2012**

<b>Tentative Date</b>	<b>Audit (A) Surv. (S)</b>	<b>Organization/Activity</b>	<b>Joint Audit/Surv.</b>	<b>Lead</b>
5/02-03/12	A	Kone (Elevators and Escalators)	Y	DTP
5/03/12	S	DTP Safety Job Hazard Analysis	Y	MWAA
5/11/12	A	Audit of DTP Records for SikaGrout 300 PT	N	MWAA
5/30/12	S	Fachinna Quality Records (Early C6)	N	MWAA
5/30-31/12	A	Delta Construction Company	Y	DTP
6/06-07/12	A	DTP System Safety and Security Program	N	MWAA
6/25/2012	A	DTP Startup and Test Program	Y	MWAA
6/27-28/12	A	Facchina Construction (Late C6)	Y	MWAA

**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 has requested that 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 draft is currently under review by the PMOC.*

- 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.*

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 the 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 be 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. It is under review by FTA and the PMOC.

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

#### **4. Project Schedule**

**Mainline** - The most recent MWAA analyzed project "Mitigation Schedule" update has a data date of *March 25, 2012*. The primary critical path identified by DTP showed a *-13* day loss as compared to a *-27* loss reflected in the *February 25, 2011*. DTP's schedule shows the Revenue Service Date to be *January 9, 2014*. The FFGA RSD is December 1, 2014. MWAA completed its schedule review and wrote letter *06631 dated April 30, 2012 which accepted the schedule and critical paths with some comments and exceptions.*

This mitigation schedule supersedes the previously approved recovery schedule with a data date of December 25, 2010 that was finally settled at \$7.2M in mid-September 2011 but does not relieve DTP from their obligations to the earlier recovery schedule. *MWAA reported during the May 9, 2012 QPRM that RFC160 and RFC161 related to the mitigation schedule have been settled and the final package for signature is being prepared.*

MWAA and DTP continue the ongoing and ever changing deliberation process of determining weather related excusable delay days as reflected in the table below.

**Excusable Days of Delay through March 25, 2012**

ACTION	WORK DAYS
<b>Total Excusable Days of Delay on Project Critical Path requested by DTP</b>	<b>63</b>
Contractually Identified	19
Retracted by DTP	4
Denied by MWAA/Disputed by DTP	11
Under evaluation by MWAA	12
Granted by MWAA	17

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.

The WFCY completion date continues to improve as MWAA and DTP continue to evaluate and refine the schedule. DTP’s schedule update of *March 25, 2012* shows the WFCY completion date as *January 9, 2014* which is a +22 improvement from the previous month. *The WFCY schedule remains under discussion and refinement to bring the completion date back to the third week in December 2013. The WFCY schedule has been incorporated into the master schedule. However, MWAA continues to request DTP provide more detailed activities.*

*DTP’s April 25, 2012 schedule update (not yet analyzed) reflects a -34 delay to the RSD attributable to RFC-139 “Tysons Central 123 South Entry pavilion.” DTP states that the impact is due to the slippage of the DGS and VDOT permits and increased scope and duration of the construction work. This newly claimed delay will need to be examined closely and a determination made as to necessary mitigation efforts. This potential delay increases the potential for claim(s) for extended overhead costs related to the Contract Completion Date. The PMOC’s remains confident that the project can be completed before the FFGA RSD of December 1, 2014.*

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

- Downtimes and or equipment breakdown associated with LG2 and DTP’s lack of resources to address this deficiency.
- DTP’s non-performance in meeting recovery schedule dates in Stations and Aerial Guideways causing delays to Delta’s access for track installation.
- DTP’s non-performance in heavy civil construction operations, i.e. installation of retaining walls, ductbanks and manholes, jack & bore operations project-wide causing delays to Delta’s access.
- Obtaining required weekend outages from WMATA for the K-Line Tie-in work.

- WMATA systems upgrade programs requested by WMATA could have numerous technical scope changes affecting Traction Power, Automatic Train Control, and Communications.

#### **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 *March* 2012 Schedule Update, Critical Path No. 1, *continues to be* LG #2 precast segmental erection operations of the Tysons West Guideway outbound of Tysons West Station *which* has a -13 calendar day float for achieving SSCD on September 5, 2013. MWAA agreed with DTP's Critical Path No. 1 (LG #2) in the *March* 2012 Schedule Update, as presented, while taking exceptions as noted below:

1. *DTP did not assign appropriate durations for segmental erection of several spans which could have been potentially impacted by erection over live traffic and other complexities.*
2. *DTP's continued re-sequencing of activities and changing of their durations to mitigate delays resulting in significant deviations from the agreed plans. More critical activities were stacked up as a result of these modifications to the schedule.*
3. *MWAA's analysis of Wayside Train Control Installation Activities shows that some of the activities are not logically tied.*
4. *DTP did not reflect field plans accurately in the schedule updates which could potentially impact segmental erection performance as it progresses across Route 7 and DTR into the DIAAH median.*
5. *DTP's critical and near critical path still includes several activities with durations over 20 work days, which is not in compliance with the contractual requirements.*

*However, MWAA notes that in response to the above noted review comments and follow-up comment resolution meetings; DTP has corrected most of the issues with a few still under discussion.*

The PMOC agrees with MWAA's assessment regarding the critical path. MWAA continues to analyze the schedule carefully and to hold DTP accountable for changes made to the agreed schedule. The detailed review and approval/agreement process demonstrates the on-going refinement of the scheduled activities to achieve a beneficial efficiency to the project schedule. Also, MWAA and DTP are currently implementing an agreed Mitigation Schedule as of November 1, 2011.

However, the PMOC anticipates that new disagreements will continue to arise for claimed weather delays and change order impacts to the schedule *as demonstrated and noted above with regard to the newly reported delays reflected in the yet unanalyzed April 25 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	February 2012	March 2012
Receipt of FFGA	<b>03/03/09<sup>1</sup></b>	03/10/09 A	03/10/09 A	03/10/09 A
Station Design Complete	<b>10/21/09</b>	02/18/11	10/28/11 A	10/28/11 A
Utility Relocation Complete	<b>03/05/10</b>	09/13/11	1/31/12 A	1/31/12 A
Aerial and Station Foundations Complete	<b>3/4/11</b>	09/01/11	07/23/11 A	07/23/11 A
NATM Tunnels Mined	<b>01/29/11</b>	12/03/10 A	12/03/10 A	12/03/10 A
K-Line Tie-In	<b>12/23/11</b>	03/28/12	10/14/11 A	10/14/11 A
Guideway Complete	<b>2/12/12</b>	09/13/12	10/30/12	11/02/12
Train Control Complete	<b>10/26/12</b>	10/29/12	1/15/13	12/19/12
Substantial Completion	<b>07/31/13</b>	07/31/13	09/19/13	09/05/13
Revenue Operations - Target	<b>11/27/13</b>	01/20/14	01/23/14	01/09/14
FFGA Revenue Operations	<b>12/01/14</b>	12/01/14	12/01/14	12/01/14

<sup>A</sup> Actual Date    <sup>1</sup> Date was not met.

## **b. Important Activities – 90-Day Look Ahead**

The important milestones scheduled for the next 90 days include:

- West Falls Church Yard Schedule Agreement.
- Completion of station pedestrian bridges and pavilions designs/permitting.
- Formal Settlement of RFC 160 and 161 and the Recovery Schedule.
- Property acquisitions for the Tysons West Aerial Guideway (OP-8).
- TPSS #10 and #11 civil work. (Site work needs to be completed to allow Powell to proceed.)
- Property acquisition for Operations Area 9 and 10.

## 5. Project Cost

The SCC Budget and Expenditures summary for the period ending *March 25, 2012* is as follows. Overall, approximately 68% of the budget (excluding contingency and finance charges) has been expended.

FTA SCC CODE	DESCRIPTION	BASELINE BUDGET	CURRENT BUDGET <sup>1</sup>	EXPENDED TO DATE	ESTIMATE AT COMPLETION
10	Guideway and Track Elements	\$ 666,500,284	\$ 639,818,210	\$ 537,504,427	\$ 639,818,210
20	Stations	\$ 317,023,979	\$ 307,121,074	\$ 167,343,561	\$ 307,121,074
30	West Falls Church Yard	\$ 51,789,539	\$ 66,015,625	\$ 7,172,171	\$ 65,825,594
40	Site Work & Utility Relocation	\$ 232,936,987	\$ 240,091,872	\$ 204,670,595	\$ 269,348,392
50	Systems	\$ 278,157,645	\$ 314,568,387	\$ 132,224,853	\$ 311,418,502
60	Right of Way Acquisition	\$ 45,953,303	\$ 67,631,026	\$ 58,563,786	\$ 65,011,618
70	Vehicles	\$ 211,629,775	\$ 195,138,329	\$ 33,803,886	\$ 194,434,567
80	Professional Service	\$ 698,471,472	\$ 712,845,345	\$ 641,803,917	\$ 768,231,565
90	Contingency Mgmt. Reserve	\$ 130,000,075	\$ 89,257,195	\$ -	\$ 11,277,542
100	Finance Charge	\$ 509,984,571	\$ 509,984,571	\$ 65,799,308	\$ 509,984,571
<b>TOTAL (Federal portion)</b>		<b>\$ 3,142,471,635</b>	<b>\$ 3,142,471,635</b>	<b>\$ 1,848,886,505</b>	<b>\$ 3,142,471,635</b>

1) Current budget equals FFGA amount plus approved Change Orders CO-001-081, 083-114, Directive Letters 001-033 & 36-38, UR-CO-001-039.

2) Estimate at Completion (EAC) for Contingency reflects the amount approved for utilization per PM-5.07 Rev4

3) The Estimate at Completion of Finance Costs includes \$71.8 million in allocated contingency.

### a. Explanation of Variances

The major variances in the project budget are associated in seven categories as noted below and remain unchanged from last month:

1. SCC10 – Guideway and Track Elements has been reduced approximately \$26.7 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 reduced by approximately \$9.1 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.
3. SCC30 – WFC Yard has increased by approximately \$14.0 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 \$38.8 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 \$30.65 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 \$19.0 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 \$17.2 million due to actual bid prices.
8. SCC80 – Professional Services increased approximately \$69.7 million due to a combination of change events (\$17.8 million) and forecast adjustments (\$53.2 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.
9. SCC90 – Contingency Management Reserve estimate at completion of *\$11.277M* is available for future use. The PMOC is of the opinion that the contingency reserve needs to be increased based on the current status of the contract and potential overruns for Allowance Items.



b. Monthly Cost Report, March 2012

DESCRIPTION		FFGA AMOUNT (Original)	EXPENDITURE TO DATE <sup>1</sup>	ESTIMATE TO COMPLETE	ESTIMATE AT COMPLETION	PERCENT OF EAC EXPENDED TO DATE <sup>7</sup>
<b>FEDERAL (FFGA SCOPE)</b>						
<b>Design-Build</b>						
Firm Fixed Price		\$ 1,112,052,173	\$ 1,238,747,623	\$ 410,522,692	\$ 1,649,270,314	
Firm Fixed Price Insurance and Bonds		\$ 65,109,408	\$ 67,199,291	\$ 2,501,325	\$ 69,700,616	
	Firm Fixed Price Subtotal	\$ 1,177,161,581	\$ 1,305,946,914	\$ 413,024,016	\$ 1,718,970,931	
Subcontract Allowance		\$ 430,199,817	\$ -	\$ 86,240,593	\$ 86,240,593	
	Design-Build Contract Prices	\$ 1,607,361,398	\$ 1,305,946,914	\$ 499,264,609	\$ 1,805,211,523	
Indexed Commodity Escalation		\$ 77,469,926	\$ -	\$ 47,309,745	\$ 47,309,745	
	Design-Build Contract Total	\$ 1,684,831,325	\$ 1,305,946,914	\$ 546,574,354	\$ 1,852,521,269	70%
<b>Utility Relocation</b>						
Utility Work		\$ 84,312,807	\$ 100,675,145	\$ 9,589,371	\$ 110,264,515	
Terf Tax		\$ -	\$ -	\$ 0	\$ 0	
Project Management and Final Design		\$ 8,423,426	\$ 19,903,611	\$ 381,028	\$ 20,284,640	
	Utility Relocation Total	\$ 92,736,233	\$ 120,578,756	\$ 9,970,399	\$ 130,549,155	92%
<b>Right of Way</b>						
	Right Of Way Total	\$ 42,443,132	\$ 58,853,450	\$ 6,783,168	\$ 65,636,618	90%
<b>WMATA Agreement</b>						
Vehicles		\$ 195,138,329	\$ 33,803,886	\$ 160,630,680	\$ 194,434,567	
Construction and Procurement		\$ 31,484,799	\$ 3,265,012	\$ 24,833,105	\$ 28,098,117	
WMATA Force Account Startup		\$ 13,777,100	\$ 2,993,022	\$ 10,411,999	\$ 13,405,021	
Project Management and Final Design		\$ 31,235,400	\$ 18,012,158	\$ 17,685,766	\$ 35,697,924	
	WMATA Agreement Total	\$ 271,635,628	\$ 58,074,078	\$ 213,561,550	\$ 271,635,628	21%
<b>Preliminary Engineering<sup>2,3</sup></b>						
	Preliminary Engineering Total	\$ 100,968,646	\$ 100,730,999	\$ -	\$ 100,730,999	100%
<b>Airports Authority Services</b>						
General Conditions <sup>4</sup>		\$ 28,879,153	\$ 7,306,081	\$ 22,724,431	\$ 30,030,512	
Airports Authority Project Management and Wiehle Ave Garage		\$ 23,225,717	\$ 27,554,610	\$ 18,856,512	\$ 46,411,122	
Project Management Support		\$ 90,004,649	\$ 104,042,308	\$ 19,651,910	\$ 123,694,218	
	Airports Authority Services Total	\$ 142,109,519	\$ 138,903,000	\$ 61,232,852	\$ 200,135,852	69%
<b>Contingency<sup>5</sup></b>						
	Contingency Total	\$ 297,762,579	\$ -	\$ 11,277,542	\$ 11,277,542	
<b>Finance Costs</b>						
	Finance Costs Total	\$ 509,984,571	\$ 65,799,308	\$ 444,185,263	\$ 509,984,571	
<b>Total Federal (FFGA Scope)</b>		<b>\$ 3,142,471,635</b>	<b>\$ 1,848,886,505</b>	<b>\$ 1,293,585,130</b>	<b>\$ 3,142,471,635</b>	<b>68%</b>

### c. Project Funding Sources: *March 2012*

SOURCES OF CAPITAL FUNDING	GRANT ID	PERCENT AT COMPLETE	TOTAL	EXPENDED TO DATE <sup>1</sup>	PERCENT FUND SOURCE EXPENDED TO DATE	REMAINING
<b>Sec 5309 New Starts Federal Funds</b>						
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 <sup>5</sup>	VA-03-0113-04		\$ 115,799,000	\$ 115,799,000	100%	\$ -
FFGA Balance	Planned		\$ 379,717,636	\$ -	0%	\$ 379,717,636
<b>Subtotal - New Starts</b>		<b>28.64%</b>	<b>\$ 900,000,000</b>	<b>\$ 520,282,364</b>	<b>57.81%</b>	<b>\$ 379,717,636</b>
<b>Other Federal Funds</b>						
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%	\$ -
<b>STP/Sec. 5307</b>		<b>2.39%</b>	<b>\$ 75,000,000</b>	<b>\$ 75,000,000</b>	<b>100%</b>	<b>\$ -</b>
<b>Local Funds</b>						
VTA 2000						
			\$ 51,700,000	\$ 51,700,000	100%	\$ -
Commonwealth Transportation Bonds <sup>2,5</sup>						
			\$ 125,000,000	\$ 113,600,000	91%	\$ 11,400,000
Fairfax County Funds <sup>3</sup>						
			\$ 523,750,000	\$ 272,355,062	52%	\$ 251,394,938
Dulles Toll Road Revenues <sup>2,4,5</sup>						
			\$1,467,021,634	\$ 815,949,079	56%	\$ 651,072,555
<b>Subtotal - Local Funds</b>		<b>68.97%</b>	<b>\$2,167,471,634</b>	<b>\$ 1,253,604,141</b>	<b>57.84%</b>	<b>\$ 913,867,493</b>
<b>Total Project Budget</b>		<b>100%</b>	<b>\$3,142,471,634</b>	<b>\$ 1,848,886,505</b>	<b>58.84%</b>	<b>\$ 1,293,585,129</b>
<b>Interrelated Highway Activities</b>						
			\$ 123,208,229	\$ 78,903,373	64.04%	\$ 44,304,856
<b>DTR Revenues/Commonwealth Funds<sup>3</sup></b>			<b>\$ 123,208,229</b>	<b>\$ 78,903,373</b>	<b>64.04%</b>	<b>\$ 44,304,856</b>
<b>TOTAL</b>			<b>\$3,265,679,863</b>	<b>\$ 1,927,789,878</b>	<b>59.03%</b>	<b>\$ 1,337,889,985</b>

<sup>1</sup> Reflects costs through March 31, 2012.

<sup>2</sup> In January 2010, \$23.6M 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.

<sup>3</sup> Includes Tax District Revenues (\$400M) plus debt service costs allocated to Project Budget.

<sup>4</sup> Includes pay-as-you-go revenues and bond proceeds.

<sup>5</sup> Expenditures includes accruals.

## 6. Project Risks

In August 2008, FTA directed the PMOC to resume the risk process and to prepare a report that combines the requirements of PG-40: Subtasks PG-40E, PG-40F, and PG-40G. These subtasks are to identify the framework for primary and secondary mitigation of project cost and schedule. A draft PG-40EFG report was prepared and the Risk Register was updated. The documents were shared with MWAA and a workshop was held on August 26-27, 2008 to review the Risk Register, reach a consensus on the top ten costs and schedule risks and to identify MWAA's cost, schedule and secondary mitigation procedures. The PMOC issued the Final PG-40EFG spot report on October 6, 2008.

**Budget Risks.** Through *March 25, 2012*, MWAA reports that it has utilized \$233,083,097 (98%) of the \$236,500,000 available contingency for the first seven contingency milestones leaving a contingency balance of \$3,416,903 (2%) available through the current phase of construction. The contingency utilization reflects expended costs. MWAA estimates that Phase 3, Utility Relocation Program, will be fully completed in the second quarter of 2012. MWAA reports that it has already obligated \$53,401,942 of the \$61,262,579 available for Phases 8

through 12. As of *March 25, 2012*, of the \$297,762,579 total project contingency, the project has a total of \$11,277,542 available. However, MWAA estimates that the cost of the Allowance Items recommended for award, but not yet charged to the project is estimated to be \$49.0 million over budget. **Thus, the project may be officially over budget in the near future unless MWAA determines other courses of action.**

To address potential budget overruns, the PMOC concludes that MWAA needs to replenish the Project contingency and actively pursue items that may be additional scope (non-FFGA) and billed to the responsible parties. The PMOC's current assessment is that MWAA needs to add approximately \$94 million in Contingency.

The projected overruns in the estimated costs of the remaining Allowance Items (\$49.0M) indicate that there is an immediate need to replenish the project contingency. **Given the forecasted magnitude of the Allowance Items cost overrun, the Project is, in the PMOC's opinion, on track to exceed the FFGA budget, if the additional scope (non-FFGA) is not removed from the federal project.** The PMOC continues to review both the use of contingency and the changes that can be considered additional scope (non-FFGA) to determine the shortfall in contingency. This matter was again progressed during a follow-up meeting on April 10, 2012 between MWAA and the PMOC. MWAA *completed* their assessment of Additional Scope – non-FFGA items (CNPAs) and *submitted* their results to the PMOC/FTA *on April 24, 2012 via letter No. 06604. Following review and approval, the Airports Authority will transfer the cost for the Non FFGA Scope items from the FFGA Budget and Estimate at Completion (EAC), and replenish the contingency accounts (Federal and Non Federal) establishing a separate account with an "additional Funding Source" to capture the specific Non FFGA scope.*

MWAA acknowledged that the FTA and VDOT budgets are fixed, that the other funding partners bear a percentage 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.

MWAA *also* acknowledges a \$71.8 million in potential additional contingency from a reduction in budgeted Finance Charges. In a discussion following the February 2, 2012 progress meeting, the FTA concurred with MWAA's request to allow the finance cost savings to be re-allocated to contingency. MWAA will address this change in the near future.

MWAA's estimate of the **Earned Value** for the Project through *March 2012* is 74.1%.

**Schedule Risks.** With regard to Schedule Contingency, MWAA and DTP 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 *March 2012*, MWAA has granted DTP time extensions of 23 (17 work days) calendar days reducing the available contingency from 510 to 487 calendar days.

The following are the Project's current Top 10 Cost and Schedule Risks from the RCMP dated December 2011 and transmitted on March 5, 2012 and updated for the month of March 2012, along with their status.

## Top 10 Project Risks

RISK NUMBER	RISK DESCRIPTION	RISK RATING	RISK STATUS			
			SINCE INCLUSION ON TOP TEN LIST		OVER PAST 30 DAYS	
			COST	SCHEDULE	COST	SCHEDULE
R21	Additional Remote Monitoring of TPSS.	15	Increased	Increased	Unchanged	Unchanged
C39	Construction issues (WFCY delayed construction which effects opening of the system).	12	Decreased	Decreased	<i>Unchanged</i>	<i>Unchanged</i>
R23	Automatic Train Control (ATC) System Requirements per NTSB concerns and Other Systems Issues resulting from the Red line accident and NTSB safety report.	12	Unchanged	Unchanged	Unchanged	Unchanged
M27	Delay in Vehicle (Rail Car) Delivery beyond the specified FFGA ROD date of December 1, 2014.	12	Unchanged	Unchanged	Unchanged	Unchanged
C28	Completion of the installation of upgrade for the new (proposed) communication center at the Carmen Turner Building by WMATA to support integration testing to meet the Project ROD.	12	Unchanged	Unchanged	Unchanged	Unchanged
C27	WMATA resource constraints delay system acceptance or operational testing resulting in additional costs.	10	Decreased	Decreased	<i>Unchanged</i>	<i>Unchanged</i>
C20	WMATA deliverables scope of work – including technical support and WMATA construction elements may exceed the budget and schedule.	10	Unchanged	Unchanged	Unchanged	Unchanged
D35	Incorporation of the Tysons - 123 Pavilion (Macerich) into the D/B Contract scope.	9	<i>Unchanged</i>	<i>Unchanged</i>	<i>Unchanged</i>	<i>Unchanged</i>
D34	WMATA Delay in reviewing/approving DTP design documents.	9	<i>Unchanged</i>	<i>Unchanged</i>	<i>Unchanged</i>	<i>Unchanged</i>
C21	Availability of track access for the Contractor to complete the K-Line connection work.	8	<i>Unchanged</i>	<i>Unchanged</i>	<i>Unchanged</i>	<i>Unchanged</i>

  = Included in previous top 10 listing

## 7. Action Items

### MWAA – DULLES CORRIDOR METRORAIL PROJECT - Items for Grantee Action

PR	ITEM	IDENTIFICATION	NATURE of PROBLEM	D	A	I	COMMENTS	STATUS
2	2A.04	Update Procedures PM5.01 (Processing DB Changes) and PM5.07(Management of Project Contingency)	Procedures need to include Directive Letters and Contingency Drawdowns.	Y	Y	N	These Procedures in support of RCMP need to be updated to include Directive Letters, Contingency Drawdown and top management control of contingency. PM-5.07, Rev. 4 was submitted with RCMP Rev.3 and accepted by the FTA. <b>Revision to PM-5.01 remains outstanding.</b>	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
BFMP	Bus Fleet Management Plan
CAR	Corrective Action Request
CCC	Construction/Procurement/Installation Conformance Checklist
CD	Calendar Days
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
<i>DCR</i>	<i>Dulles Connector Road</i>
DF	Direct Fixation
DGS	(Virginia) Department of General Services
DIAAH	Dulles International Airport Access Highway
DR	Deficiency Report
DTP	Dulles Transit Partners, LLC
DTR	Dulles Toll Road
DVP	Dominion Virginia Power
FFGA	Full Funding Grant Agreement
FTA	Federal Transit Administration
FTE	Full Time Equivalent
FY	Fiscal Year
HOT	High Occupancy Toll
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
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)
SAIC	Scientific Applications International Corporation
SCC	Standard Cost Category
SCIL	Safety and Security Certifiable Items List
SOE	Support of Excavation
SSCD	Scheduled Substantial Completion Date
SSMP	Safety and Security Management Plan
SSWP	Site Specific Work Plan
STP	Surface Transportation Program
TBD	To Be Determined
TOC	Tri-state Oversight Committee
TPSS	Traction Power Substation
UR	Utility Relocation
VDOT	Virginia Department of Transportation
W&OD	Washington and Old Dominion
WFC	West Falls Church
WFCY	West Falls Church Yard
WMATA	Washington Metropolitan Area Transit Authority
XO	Executive Officer



## APPENDIX B -- PROJECT OVERVIEW AND MAP

### Project Overview

**Date:** *June 5, 2012* (reporting current through *April 2012*- Financials through *March 2012*)

**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.

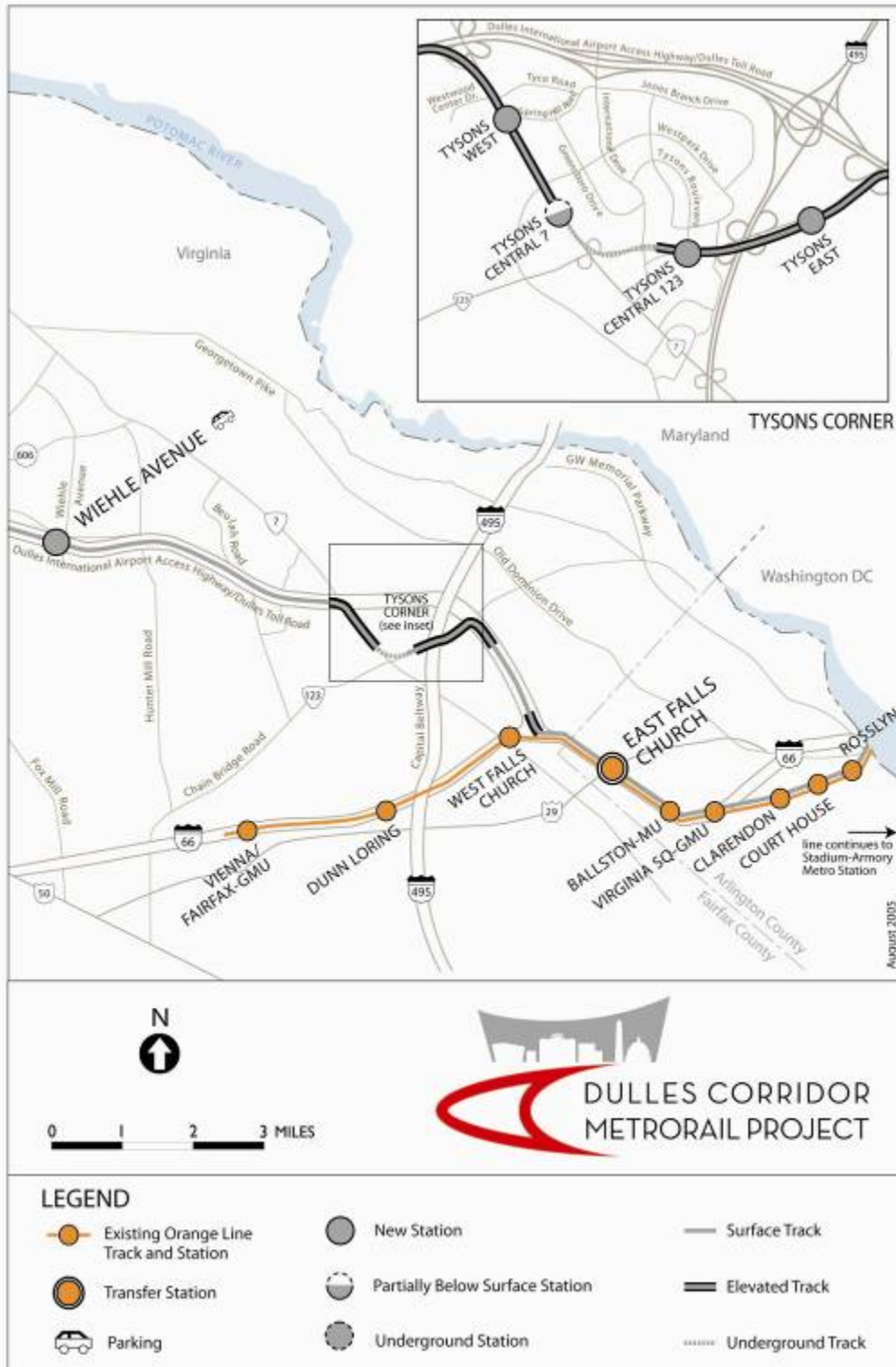
### Schedule

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
01/09/14	Revenue Service Date (RSD) <i>as of March 25, 2012</i>		
72.0%	Percent Complete Construction <i>as of April 30, 2012.</i>		
54.9%	Percent Complete Time based on RSD of December 1, 2014 (based on FFGA)		
74.1%	MWAA's Estimate of Project Earned Value through <i>March 2012</i>		

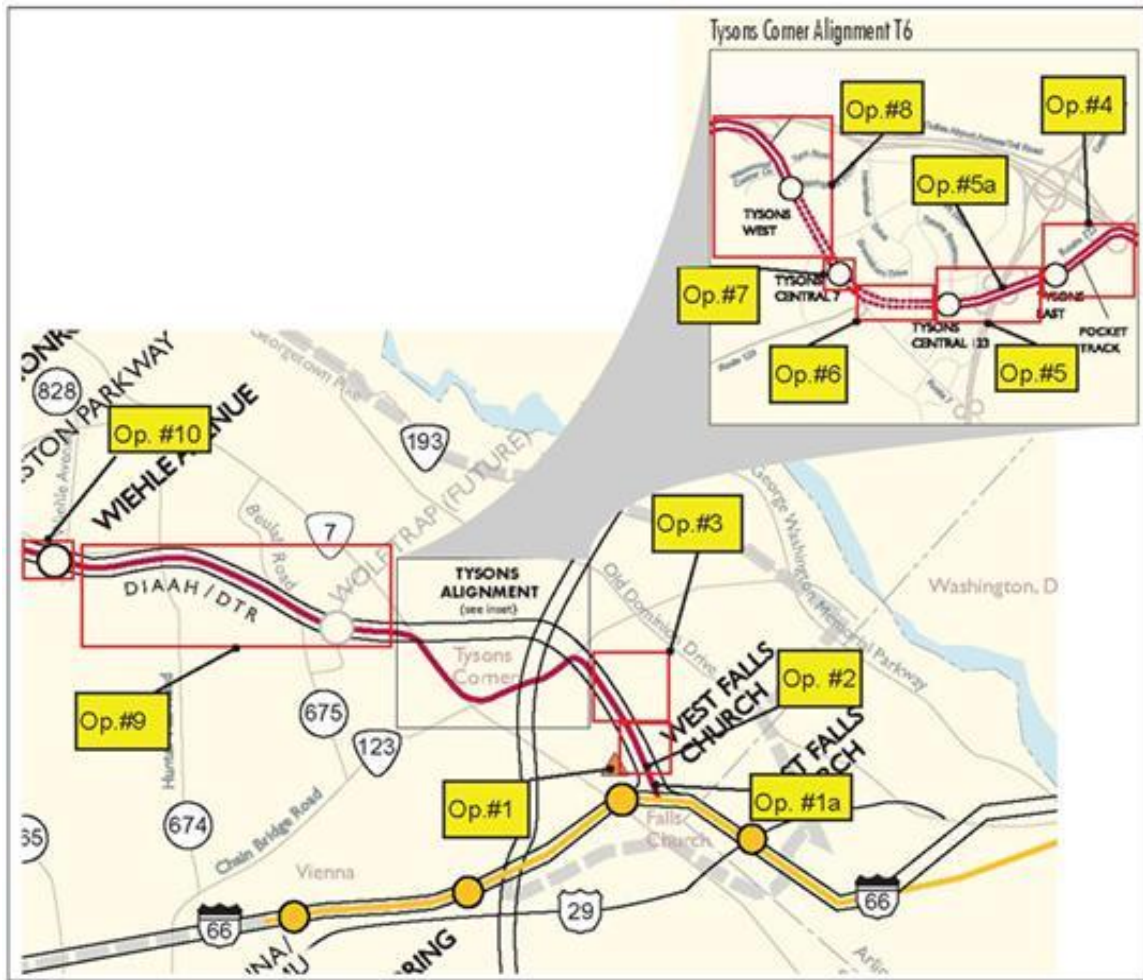
**Cost**

\$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
<i>\$1.848 billion</i>	Expenditures through <i>March 2012</i> from total project budget of \$3.142 billion.
<i>68%</i>	Percent complete based on federal expenditures excluding contingency and finance charges through <i>March 2012</i> .
<i>\$11.27 million</i>	Total project contingency remaining (allocated and unallocated) through <i>March 2012</i> .

# Project Map



## Construction Operational Areas



## APPENDIX C – MWAA SAFETY AND SECURITY CHECKLIST

<b>Project Overview</b>	<b>Dulles Corridor Metrorail Project</b>		
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		
<b>Project Plans</b>	<b>Version</b>	<b>Review By FTA</b>	<b>Status</b>
Safety and Security Management Plan	3/2012	4/2012	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, which is under revision.

<b>Safety and Security Authority</b>	<b>Y/N</b>	<b>Notes/Status</b>
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.

<b>SSMP Monitoring</b>	<b>Y/N</b>	<b>Notes/Status</b>
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	

<b>Construction Safety</b>	<b>Y/N</b>	<b>Notes/Status</b>
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 315 first aid cases and four lost time cases in 10.065 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	

<b>Federal Railroad Administration</b>	<b>Y/N</b>	<b>Notes/Status</b>
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**

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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