

COMPREHENSIVE MONTHLY REPORT

May 2010

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

June 18, 2010

PMOC Contract Number: DTFT60-09-D-00016

Task Order Number: 002, **Project Number:** DC-27-5142, **Work Order NO.** 01

OPs Referenced: 01, 25

Hill International, Inc.

One Penn Square West

30 South 15th Street

Philadelphia, PA 19102

PMOC Lead: [REDACTED]

Length of Time PMOC Assigned to Project: 9.5 years

Length of Time PMOC Lead Assigned to Project: 2 years

Executive Summary

The Project Management Oversight Contractor (PMOC) met with Metropolitan Washington Airports Authority (MWAA) on *June 3, 2010* to conduct a monthly progress meeting for work performed in *May 2010*. The full time on-site PMOC attended various weekly project meetings throughout this reporting period and toured the construction site on a weekly basis. 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 rail cars are required to provide service for the Project. Based on the Full Funding Grant Agreement (FFGA), the Revenue Operations Date (ROD) is December 1, 2014. Based on the *selected manufacturer's* proposed schedule, the 64th car will be delivered *by September 12, 2014 based on a July 12, 2010 notice to proceed*. The Federal New Starts share is \$900 million for the Initial Operating Segment (extension to Wiehle Avenue). Through Federal fiscal year (FY) 2009, Congress has appropriated \$279 million in Section 5309 New Starts funds and \$77.3 million in American Reinvestment and Recovery Act (ARRA) Capital Investment funds.

The Project Map is located in Appendix B.

2. Project Status Summary

The PMOC met with MWAA on *June 3, 2010* to conduct a monthly progress update meeting for work accomplished in *May 2010*.

Real estate acquisition continues to keep ahead of construction requirements, often resorting to rights-of-entry (ROE) to gain access to required parcels.

Design progress continues to lag behind the baseline schedule but currently does not affect construction progress. Final Design of the stations was originally anticipated to be completed by the end of the third quarter of 2009. Final design of the station structures has been completed and submitted for review and coordination. Upon receipt and incorporation of all comments, these designs will be permitted and the structures will proceed on foundations already under construction. This design excludes the access pavilions and final bridge alignments subject to coordination with adjacent developers. Overall design completion of the five stations through "Issued for Construction" (IFC) drawings including pavilions is now anticipated to be completed

in the third quarter of the 2010. Overall project design is approaching 90% complete as of the end of *May* 2010. The project design is not currently affecting the schedule's critical path. MWAA needs to provide the PMOC with the impact on cost contingency as a result of finalizing station design. *MWAA reported that property owners adjacent to the station sites are requesting modifications to the design.*

Construction progress is broken into two components: utility relocation, which is 92% complete and design-build (DB) construction, which is approximately 14% complete. *Four utility companies completed their work in May.* The remaining utility companies are forecast to complete their work in late *June* 2010 with the exception of MCI which is forecast to complete its work in *mid July*. *The east-bound Route 7 road shift was accomplished on June 5, 2010.* The west-bound Route 7 road shift is not scheduled to occur until late summer 2010.

The O-1 Guideway is approximately 49% complete. The Tysons East Guideway/Station is approximately 30% complete and the NATM Tunnel is approximately 30% complete. Tysons East Station is approximately 7% complete and Tysons Central 123 Station is approximately 5% complete. The Wiehle Avenue Station is approximately 11% complete. The pre-cast yard is approximately 98% constructed, and has cast 585 concrete box girders segments to date *and has begun casting segments for the station guideways in the long line casting area.*

The Schedule showed a 16 calendar day improvement with the most current analyzed update schedule (data date of *April 25, 2010*) showing a total -83 calendar days (*-99 in March*) variance from the approved baseline schedule. This results in a projected ROD of *February 25, 2014*. *DTP's May schedule update that has not yet been analyzed shows a January 2014 West Falls Church Yard upgrade completion. This reflects an improvement to the August 2014 date that was shown in the April schedule update.* MWAA continues to note that it does not agree with the critical paths presented by DTP as being reflective of the critical path of the Project. MWAA continues to meet with DTP to discuss the disagreement on the schedule's critical path and excusable weather delays. However, no agreements have been reached to date. MWAA anticipates that the discussion and agreement on the critical path *along with the implementation of work-arounds and schedule adjustments* will significantly lessen the current 83 day loss currently shown on the schedule.

It remains the PMOC's opinion that recovery of the reported schedule losses is within the Project's ability via work-arounds and schedule adjustments. *Recent improvements to the projected Revenue Operations and WFCY completion dates demonstrate that recovery of the reported schedule losses are within the Project's ability.* Therefore the Contract Completion Date is not considered to be in serious jeopardy at this time. *The Project will need to continue its efforts to resolve disagreements relative to the WFCY, critical path, logic and delay issues in order to minimize the risk of irretrievable schedule creep leading to costly schedule compression or constructive acceleration.*

Budget status as of *April 25, 2010* indicates that \$659,390,020 (21%) has been expended of the \$3,142,471,634 budget total. *MWAA reports \$64,706,749* of the available contingency for the first three contingency milestones has been utilized with a remaining balance of \$74,293,251 available through the completion of stations *design and utility relocation work*, both now

anticipated to be completed by July 2010. *The PMOC does not agree that the Phase 2 contingency milestone has been achieved, and has reviewed MWAA's draft justification paper dated April 20, 2010, which was presented at the May 6th meeting. The PMOC reported during the June 3, 2010 update meeting that its position remains unchanged since the justification addresses only schedule and not cost. MWAA's estimate of the earned value for the Project through April 2010 is 32.6%.*

3. PMOC's Assessment of Project Status

The PMOC continues to observe delays in the design development particularly with regard to station design and now with the systems designs. To date, this has had no known impact on the critical path. However, some of the late design packages are continuing to accumulate negative float on the *April* schedule. The impact on cost contingency for the complete station design and utility completion milestones has not been determined. MWAA continues to meet with DGS, VDOT, WMATA and DTP to coordinate and resolve the design and design review issues. MWAA's ongoing efforts are yielding progress. *However, MWAA and DTP continue to voice concerns with the lengthy review cycles by WMATA and VDOT.*

Utility relocation continues with utility companies striving to meet the requirements of the Project. Efforts to recover lost time caused by *inclement* weather and unforeseen obstacles continues along the Route 7 corridor utilizing extra shifts, weekend work and other mitigation efforts. Completion of utility relocation work continues to be critical to the project's plans to shift Route 7 in the Tysons West Station area. *Route 7 east-bound lanes were shifted on June 5, 2010 to support work on the Tysons Central 7 Station. Four utility companies completed their work in May. The remaining utility companies are expected to complete in late June with the exception of MCI which expects to complete in mid-July 2010.* The west-bound Route 7 road shift is not scheduled to occur until late summer. The civil contractor and the utility contractors meet on a weekly basis to coordinate their efforts and priorities needed to support the upcoming roadway shifts.

The estimated Full Time Equivalent (FTE) total for *May* is 1,445, which is an increase from *April* of 48. The pre-casting facility has produced 585 of 2,600 pre-cast concrete girder segments. The New Austrian Tunneling Method (NATM) tunneling is on-schedule with the contractor completing 882 of 1,670 feet for the Outbound (OB) track and 663 of 1,686 feet for the Inbound (IB) track.

The final "Plan for Inspection and Testing of the Existing H Piles" (Rev.0) was approved by MWAA on March 30, 2010. *The Pier 7 IB PDA testing was successfully completed on April 14, 2010. PDA/static load tests were successfully conducted on piers 1-IB, 6-IB, 5A-OB and 4-IB during the May 29, 2010 weekend Orange Line track outage. Successful PDA tests were conducted on 2-OB, 3-OB and 2-IB during the June 5, 2010 weekend Orange Line track outage. The one remaining pier PDA test and the 2 static load tests are expected to be completed during the month of June 2010.*

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1. Grantee's Capabilities & 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.

- **Project Staffing**

All vacancies have been filled as of March 2010.

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 updated project schedule with a data date of *April 25, 2010* reflects a -83 calendar day variance with the contractor's baseline schedule with a Revenue Operations Date (ROD) of December 4, 2013. The current variance would result in a ROD of *February 25, 2014*. It is the PMOC's observation that MWAA continues to carefully scrutinize the schedule update submissions and meets with the contractor within two weeks of the schedule submission to discuss their observations and to discuss mitigation strategies with DTP. The FFGA ROD is December 1, 2014.

MWAA continues to monitor expenditures to date and update the estimate at completion. To date, MWAA has utilized \$64,706,749 of the Phase 1 and Phase 2 contingency total of \$99,000,000. Although MWAA has indicated that the project has progressed to the Phase 3 level of contingency, the PMOC does not agree. At the May 6, 2010, update meeting with MWAA, the Authority presented a justification for moving to the Phase 3 level of contingency. The PMOC *reviewed the justification and reported at the June 3, 2010 update meeting that there was still disagreement to be discussed since the justification addresses only schedule and not cost. MWAA will revise the white paper to include a discussion of cost.*

The Quality Assurance (QA)/Safety group maintains an active schedule of audits and surveillances and accident data. Through *April 2010*, of the cumulative total of hours worked of *2,405,102*, there have been no lost time events. The required sign-offs on the “System Safety/Security Certifiable Items List” (SCIL) continue to be a problem. *However, a meeting held between MWAA and DTP to address these problems and a path forward was conducted on May 25, 2010. This will be discussed further in section 2e of this report.* Revision 2 of the SCIL was distributed for review and comment on March 15, 2010. *Informal comments were received from WMATA in May and combined with MWAA’s comments that were forwarded to DTP for action on May 24, 2010.*

MWAA continues to monitor the risk status and reports this information on a monthly basis.

c. Compliance

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

- **Project Management Plan and Sub-plans**

MWAA’s Project Management Plan (PMP), Version 6.0 dated September 26, 2008 has been accepted by the FTA. The PMOC did a compliance review of MWAA’s compliance with the PMP and issued a Spot Report on December 8, 2009. MWAA is in the process of updating the PMP based on the PMOC’s observations and the recent MWAA reorganization to an integrated MWAA and PMSS organization. MWAA anticipates completing the PMP update in late *June 2010*. The PMOC’s various compliance reviews performed during 2009 have found MWAA to be in compliance with their various project plans and sub-plans.

- MWAA’s Quality Program Plan (QPP), Revision 6, dated June 25, 2008 was accepted by the FTA on September 19, 2008. MWAA submitted a revised QPP, Revision 7 to FTA on January 7, 2010. MWAA awaits FTA’s comments on the revised plan or an indication that no comments will be forthcoming.
- 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 is in the process of addressing the comments by revising Procedure PM-3.01(Monitoring the Design-Build Contractor Property Acquisition Services) and requesting DTP to revise their Procedure PIQ-5.1.
- MWAA’s Risk Management Plan (RMP) dated October 2008 has been reviewed and accepted by the FTA. *The PMOC requested MWAA to begin the process to update the RMP by the end of the summer.*
- 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 has updated the RFMP to reflect the 7000 Series Cars’ quad concept and has 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 provided comments to WMATA on March 15, 2010 based on the PMOC's Spot Report. The PMOC met with WMATA on April 6, 2010 to review the comments on the draft RFMP. *The PMOC again met with WMATA on June 2, 2010, at WMATA's request, to further discuss the comments.*

- MWAA's Safety and Security Management Plan, Revision No. 6 dated January 2009 was accepted by the FTA on January 27, 2009. MWAA submitted the SSMP, Revision 7, to the FTA on September 23, 2009. The changes in Revision 7 were minor in nature and reflected changes in personnel assignments, integration of the Fire/Life Safety Working Group with the Safety/Security Certification Working Group, and updates to schedules. Due to the minor nature of the changes, no response is expected from the FTA.

2. Project Scope

a. Bidding & Construction Status

- Utility relocation is 92% complete and DB construction is approximately 14% complete. Utility companies continue to relocate their facilities into the duct banks and facilities installed by MWAA's utility contractor. Efforts to recover lost time caused by harsh winter weather and unforeseen obstacles continues along the Route 7 corridor with extra shifts and weekend work. *Four Utility companies completed their work in May and others are striving to meet the requirements of the Project. Completion of utility relocation work is critical to the project's plans to shift the Route 7 roadway to support construction starts at Tysons Central 7 and Tysons West Station areas. MCI completed a temporary "lift and lay" cable work around plan necessary to support a planned east-bound Route 7 road shift that was accomplished on June 5, 2010. The west-bound Route 7 road shift is not scheduled to occur until late summer. The civil contractor and the utility contractors meet on a weekly basis to coordinate their efforts and priorities needed to support the remaining west-bound road shift.*
- Work continues on the completion of designs, with stations' designs continuing to lag. The problems with regard to stations design are due to a combination of poor quality control of the documents and *cumbersome review processes and the lack of resources by reviewing agencies. MWAA and DTP continue to meet with the various permitting agencies in an effort to improve the processes. MWAA continues to stress to DTP the need for better quality assurance reviews of their submissions and is reviewing DTP's submissions before submitting them to the permitting agencies. MWAA reports that the quality of the DTP package submissions is improving, but some packages are still being returned for corrective action.* Efforts are also continuing by VDOT and WMATA to improve *their* design review cycle times. Overall basic design for all five stations is reported as complete. However, the "Issued for Permit" (IFP) and subsequent "Issued for Construction" (IFC) drawings are proving to be a drawn out process. Anticipated submission dates for IFP drawings to VDOT now range *from June 17 through June 21* for all five stations. Anticipated issuance dates for IFC drawings now range *from June 10, 2010 to July 14, 2010*, with the latter date being for the last package for the Tysons Central 7 Station in the Engineering Deliverables Schedule. Issuance of IFC design packages has not yet impacted the project's critical path since DGS *continues to assist with the permitting of partial packages. However, various design packages continue to*

accumulate negative float on the Project schedule. The impact on cost contingency for the complete station design milestone has not been determined.

- Through April 2010, \$231,250,355 of the \$437,278,511 Federal Allowance Items Budget had been awarded to subcontractors and suppliers. An \$11,870,978 overrun now exists for the 9 of 17 contracts awarded thus far for federal allowance. The remaining contingency for the applicable phase 1, 2 and 3 items is \$74,293,251.

The following are the major accomplishments of the DB contractor:

- **Operations Areas OP-1, OP-2 and OP-3 (I-66/DCR/Laydown Area 1) - DTP poured the guideway pier column at pier 7-IB to bring the total to twenty-six completed to date. The guideway pier cap at pier 6-OB was poured to bring the total to twenty-five completed to date. Preparations for bearing pedestals were completed at abutment B-IB and OB and at piers 19-IB, 20-IB, 21-IB and 16-OB. AASHTO (American Association of State Highway and Transportation Officials) girders were set in place at span 22-IB, between abutment B-IB and pier 22, and at span 21-IB, between piers 22-IB and 21-IB. Demolition was completed of existing pier foundations at piers 1-IB, 5A-OB and 6-IB on the WMATA side of I-66. Tested existing piles and installed new piles at existing foundations for piers 1-IB, 5A-OB and 6-IB and installed piles at abutment A-IB. Installation of ATC conduits at the existing K-Line started and the setting of steel bridge deck girders at the Magarity Road Bridge were completed. Backfilling at abutment B at Pimmit Run Bridge was completed and the pile cap construction at abutment A on the east side of the bridge continued. DTP also continued support of excavation (SOE) and excavation on the first of three sections of the WFCY cut and cover tunnel at the median side of the EB Dulles Connector Road. Storm drain installation continued west of Magarity Road as did excavating and pouring of retaining wall footings west of Pimmit Run.**
- **Operations Area OP-4 (Tysons East Guideway/Station) - Completed caissons at piers 13-IB/OB, 17-IB/OB, 26-OB, 29-IB, 41-OB, 44-IB/OB, 47-IB/OB, 56-IB/OB and 57-IB/OB, bringing the total to forty nine completed to date. Completed pile caps at piers 20-IB/OB, 21-IB/OB, 23-IB/OB, 32-OB and 33-OB, bringing the total to thirty completed to date. Poured pier columns at piers 18-IB/OB, 30-OB, 30-IB and 46-IB/OB, bringing the total to twenty three completed to date. Poured pier caps at piers 11-IB/OB 18-IB/OB, 22-IB/OB and 58-IB/OB, bringing the total to twelve completed to date. Completed assembly and load testing of the segmental box girder guideway between abutment A and pier 1-IB/OB. Set formwork for the straddle bents at piers 7-IB/OB and 8-IB/OB.**
- **Operations Area 5A (I-495 Crossing/Tysons Central 123 Station) - Completed caissons at piers 64-IB, 69-OB, and 69-IB, bringing the total to eleven to date. Completed pile caps at piers 66-IB and 66-OB, bringing the total to five completed to date. Continued installing SOE and excavation at Tysons Central 123 Station.**
- **Operations Area OP-6 (Laydown Area #6/NATM Tunnel/East Cut & Cover and Ventilation Structure) - DTP continued excavation of the OB tunnel completing 882 feet of 1,670 feet to date and the excavation of the IB tunnel completing 663 feet of 1,686 feet to date.**

- **Operations Area OP-6 (West Cut and Cover Tunnel)** - DTP continued pouring walls and the roof of the OB tunnel and installing waterproofing and pouring invert slab at the IB tunnel.
- **Operations Area OP-7 (Tysons Central 7 Station)** - Final grading and paving continued on the south side of the Route 7 service road and curb and gutter pouring was completed between the Best Buy and Marshalls.
- **Operations Area OP-9 (DIAAH)** - DTP grading work was completed on retention ponds 1 and 10 adjacent to the Dulles Toll Road. Installation of abutment B piles continued at the W&OD Bridge as did pile cap and column construction for the intermediate pier 2-IB/OB. Abutment B foundation and wall construction continued on the Hunter Mill Road Bridge. Continued construction of retaining walls on the OB and IB sides between the W&OD Bridge and Wiehle Avenue. Clearing and grading work and storm drain installation continued between Hunter Mill Road and Difficult Run.
- **Operations Area OP-10 (Wiehle Avenue Station/Laydown Area 13)** - Completed forming and pouring the interior platform area station columns. Continued forming and pouring platform walls and continued installation of underground sanitary sewer lines. Completed the new concrete barrier walls and continued with the final grading and paving on the EB Dulles Toll Road side in preparation for the DIAAH road shift.
- **Laydown Area #10 (Pre-cast Yard)** - Casting of segmental box girders continued with 585 completed to date. Began casting segments for the station guideways in the long line casting area.

b. Third Party Coordination & Agreement Status

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

- Real Estate

Real Estate Acquisition continues to keep ahead of construction requirements, often resorting to ROE to gain access to required parcels. Through May 2010, 59 of the 99 parcels required for the Project have been acquired.

The table below summarizes acquisition activities for the Project through May 2010.

PARCELS ACQUIRED¹
(Number of parcel packages)

LOCATIONS	TOTAL	Period			To Date		
		Planned ²	Actual	Var	Planned ²	Actual	Var
Route 66 / Dulles Connector	1	0	0	0	1	1	0
Route 123	23	0	0	0	19	19	0
Route 7	51	2	0	(2)	38	33	(5)
DIAAH	24	0	0	0	6	6	0

LOCATIONS	TOTAL	Period			To Date		
		Planned ²	Actual	Var	Planned ²	Actual	Var
TOTAL	99	2	0	(2)	64	59	(5)

Notes: 1. Parcels secured through recordation of deed/easement and filing of Certificates of Take. These values do not include rights obtained for another 27 parcels for which Certificates of Take have been filed.
2. Planned values are based on the March 31, 2010 Property Acquisition Status Update.

c. Utility Coordination

The various utility companies continue to relocate their facilities for the project. Utility coordination meetings are held with the various utilities to schedule and coordinate work. Specific utility relocation work completed in May 2010 includes the following:

- **Along Route 7 (Marshall’s to Gosnell/Westpark)** – MCI completed pulling ductbank cables at SAIC and commenced customer notifications and splicing work. AT&T Long Distance continued cable splicing and removal of cables between SAIC and Verizon MH VZN-S07 in the right lane of Route 7. Dominion Power completed ductbank tie-ins and switch pads, and started cable pulling at Phase 5 on the north side of Route 7.
- **Along Route 7 (Gosnell/Westpark to Spring Hill Road)** – TCG Virginia completed splicing and the cutover and removal of abandoned cables on the north side of Route 7. Verizon completed splicing cables in Segment 4 conduits east of Spring Hill Road on the north side. AboveNet completed cable installations on the south side of Route 7 and commenced customer notifications prior to splicing. XO completed splicing and cutover on the south side of Route 7 and continues on the north side. DTP/Lane continued with water line lateral installations and tie-ins on Spring Hill Road north of Route 7. Dominion Power completed ductbank tie-ins and switch pads and started pulling cables at Phase 4 on the north side of Route 7. MCI completed the lift and lay of the existing cables to mitigate conflicts with the Route 7 EB road shift.
- **Along Route 7 (Spring Hill Road to Tyco/Westwood)** – Cox Communications continued splicing cables. Dominion Power completed cable cutovers on the north side of Route 7 and continues removing abandoned cables. TW Telecom completed splicing and cutover work on the north side of Route 7.
- **Along Route 7 (Tyco/Westwood to Route 267/Toll Road)** – Verizon continued to install copper service cables to customers as part of Segment 4 and continues with splicing copper cables and procurement and installation of fiber cables. Dominion Power continues removal of overhead lines on the north side of Route 7 and continues with cable splicing and cutovers on the south side of Route 7. DTP/Lane completed the 34.5 kV bypass ductbank installation in front of the Design Center on the south side of Route 7. MCI completed installing inner duct and continues pulling cables on Route 7 west of the Toll Road and continues with customer notifications and splicing work.
- **Along Route 123 (Route 7 to the Route 267 Connector Road)** – DTP/Lane continued electrical ductbank installations at Colshire Drive and Route 123. AboveNet continued

conduit and cable installations at Scotts Crossing and DVP continued the tie in of ductbanks at Scotts Crossing and Colshire Drive.

- **The DIAAH/Dulles Toll Road (Route 7 to Route 267 – DIAAH West) – DTP/Lane** *continued with the jack and bore for crossing #159 on the EB Dulles Toll Road at Trap Road for Traction Power Substation (TPSS) #7 and continued with the jack and bore for crossing #156 at the WB Toll Road just west of Hunter Mill Road for TPSS #10. DTP/Lane also continued with the traction power ductbank installation in the median between the EB Dulles Toll Road and the DIAAH west of Beulah Road.*

d. Vehicle Procurement

WMATA is acquiring the 64 vehicles required for the project. The WMATA Board chose not to act on the recommendation to award the procurement contract during their March 25, 2010 Board meeting. *The WMATA Board did subsequently approve award of the contract to Kawasaki during its May 27, 2010 Board Meeting.*

MWAA also voiced disagreement with the Project's bearing all the design and prototype related cost for the 300 additional cars that WMATA is purchasing under the same procurement. MWAA CEO Bennett wrote to WMATA Interim GM Sarles on April 7 regarding this matter. *The WMATA Board approved the award of a contract and a sharing of development costs with the Airports Authority at its May 25 meeting. The Airports Authority Board agreed at its June 2nd meeting to share the development costs associated with the railcar procurement equally with WMATA.*

The schedule requires the last (64th) car to be delivered by September 20, 2013 to support the Operational Readiness Date (ORD). However, WMATA's presentation to their Board indicated that the delivery of the 64th vehicle is April 1, 2014 (based on a March 26, 2010 award date). This date does not meet the Projects needs. WMATA has stated that they will be able to support the Project's ORD needs with existing fleet cars if the car supplier is unable to improve the delivery schedule.

e. Safety & Quality Status

The Airports Authority participated in *six* safety walk downs with DTP during the month of *May*. *Two* were related to utility relocation and four were related to Design-Build work. As of *April 30, 2010*, DTP had logged a total of 2.4 million project man hours *with 61* first aid cases and no lost time cases. There were a total of *106* incident investigation reports, *64* utility hits and 13 vehicular accidents

Revision 2 of the SCIL was distributed for review to the Airports Authority and WMATA on March 16, 2010 with a comment response request date of April 9, 2010. *Airports Authority comments were transmitted to DTP on May 24, 2010 and included informal comments received from WMATA System Safety and Security Department.*

Design Conformance Checklist corrective action by DTP has continued to lag behind schedule. Two 90-day (September 2009 and December 2009) submittals of completed design conformance checklist items were submitted by DTP. Random samplings of items from both submittals were reviewed. As a result of these reviews, both samples failed and

were returned to DTP for correction. DTP took no action for several months. On April 13, 2010, MWAA and DTP met to discuss disagreements on the checklist sign-off requirements. Some progress was made and a re-submittal of the two previously rejected design conformance checklists occurred on April 21, 2010. *An MWAA review again found an unacceptable number of issues.* A third design conformance checklist submittal is overdue. On April 27, 2010, DTP submitted its first 90-day Construction, Procurement and Installation Checklist. *However, no items have been signed-off to date.*

The DTP System Safety/Security Certification Management Plan requires Design Conformance Checklist items to be signed-off by DTP Engineering as designs are issued for construction. During the Airports Authority audit of DTP Safety and Security, conducted on April 26 -27, 2010, it was determined that DTP is not currently tracking design sign-offs nor is this occurring with a consistent follow-up process. The Airports Authority is concerned that completion of the Design Conformance Checklist will continue to lag behind and the PMOC shares that concern.

As a result of these mounting concerns, a meeting was convened on May 25, 2010 between the Airports Authority management and DTP management to discuss the issues identified during the Airports Authority reviews of the Design Conformance Checklist. DTP presented a plan for addressing these issues and for proceeding in a timely manner with the sign-off of items in the Checklist. A final plan and schedule will be discussed between the Airports Authority and DTP sometime in early June. Implementation of the agreed upon plan will emphasize "catching up" the sign-offs of Design Conformance Checklist items with the issuance of Issued for Construction (IFC) designs. The on-site PMO attended this meeting and it is his opinion that DTP's management is now fully engaged in the issue resolution process and is committed to implementing a plan that will yield satisfactory results.

The Tri-state Oversight Committee (TOC) continues to meet monthly with the Safety/Security Certification Working Group and continues ongoing involvement in the certification process.

MWAA's QA group continues to monitor DTP's quality program and maintains a schedule of audits and surveillances. In addition, MWAA continues to perform safety walk downs with DTP.

During May 2010 the following QA audits/surveillances were performed:

- *Marshal Miller Safety was audited on May 4, 2010 with no issues noted. A report was issued with a closed audit status on May 17, 2010.*
- *The Facchina Safety Program was audited on May 5 and 6, 2010. There were six issues noted and three recommendations made. A report was issued on May 21, 2010 and a response is due on June 4, 2010.*
- *DTP Subcontractor/Supplier Submittal Process: DTP Nonconformance Control System was audited on May 12, 2010. There were no issues noted. The report was issued on May 17, 2010 with a closed audit status.*

- *Facchina installation of storm sewers, construction of curb and gutter and sidewalk and construction of asphalt pavement activities were audited on May 17, 2010. Five issues were noted and a report was issued on May 27, 2010 and a response is due on June 11, 2010.*
- *Alstom Signaling (Automatic Train Control) was audited on May 19 and 20, 2010. The observations are yet to be finalized and a report is currently being prepared by DTP.*

The QA Audit and Surveillance Schedule *through July 2010* follows:

Tentative Date	Audit (A) Surveillance (S)	Organization/Activity	Joint Audit/ Surv.	Lead
6/9/10	S	DuBrook Concrete	Y	MWAA
6/9-10/10	A	Rizzani De Eccher Construction Safety Program	Y	MWAA
6/14-15/10	A	<i>Delta Railroad</i>	Y	<i>DTP</i>
6/16/10	S	Internal surveillance of implementation of PM-5.05	N	MWAA
6/23/10	S	DTP Subcontractor Construction Safety	N	MWAA
6/23-24/10	A	<i>Rocla Concrete Ties (Bear, DE)</i>	Y	<i>DTP</i>
7/07-08/10	A	<i>DTP Environment</i>	N	MWAA
7/14-15/10	A	<i>J.P.Concepts/Progress Rail Services (Rail) (Steelton, PA)</i>	Y	<i>DTP</i>
7/21-22/10	A	<i>MWAA QA Program</i>	N	MWAA
7/28-29/10	A	<i>Facchina Construction</i>	Y	<i>DTP</i>

3. Project Schedule

The most recent analyzed project schedule update has a data date of *April 25, 2010*. The primary critical path identified by DTP reflects a -83 calendar day variance in the achievement of the SSCD from that reflected in the approved Baseline Schedule. This variance reflects *an improvement of 16 calendar days in the critical path* since the previous schedule update.

The critical path this period originates with the *Level 3 Communications and the Verizon Business (MCI) utility relocation in the vicinity of Tysons West Station and progresses through the temporary shift of Route 7 to facilitate the construction of the Tysons West Station. The EB Route 7 detour for the Tysons Central 7 Station was completed on June 5, 2010. MCI’s “lift and lay” temporary cable work-around helped facilitate that EB Route 7 road shift. MCI will continue to utilize this work-around process to support future Route 7 road shifts.*

DTP added the Level 3 Communications as a new activity to the schedule’s critical path after learning that the hybrid 864-count fiber cable was missed on the utility company’s cable order and was not readily available. According to the recently received, but yet unanalyzed May schedule update, these two critical path activities have pushed the Route 7 road shift for the

Tyson's West Station to August 31, 2010, representing an eleven day loss from the April schedule update. DTP and Level 3 are continuing to investigate options to expedite this work to avoid further adverse ripple effects to the scheduled August 31, 2010 Route 7 detour in the Tyson's West Station area.

The WFC Yard upgrade work now reflects a completion of the full facility in *January 2014* as compared to the *August 2014* completion date forecast last month. *DTP states in its May schedule narrative that this improved date “incorporates a number of assumptions with regards to permitting and access to perform the work. DTP continues to finalize the WFCY schedule, which will be provided in a revised RFC-065 proposal.” The WFCY work is still disconnected from the schedule’s critical path. DTP’s reason was stated in response to MWAA’s review comment on the February Schedule as follows: “DTP has previously advised MWAA that the WFCY schedule will be excluded from the Project SSCD due to the delay imposed on the WFCY work. Until design progression allows for a firm schedule for this work and resolution of the commercial issues surrounding the WFCY, DTP’s position remains unchanged. Therefore, the MWAA/PMSS suggestion that the WFCY is the primary critical path is not valid.” MWAA continues to state its disagreement with DTP’s completion date in light of the incomplete WFCY scope.*

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

- Segmental girder changes for I-495 crossing/schedule conflict with HOT Lanes Project.
- Utility companies meeting the project schedule.
- Utility redesign/relocation due to interference/conflicts with HOT Lanes Project.
- WFCY design, construction and commissioning.
- Weather Delays.

Bi-weekly meetings held between MWAA and DTP with regard to the schedule and schedule mitigation efforts continue to yield work-arounds and some increased shifts, particularly with regard to the late UR work, VDOT MOT approvals and design package reviews. It *remains* the PMOC’s opinion that MWAA is maintaining control over the Project master schedule, with the exception of the WFCY that continues to be of concern relative to meeting the scheduled Project Operational Readiness Date (ORD). In addition, the critical path, the weather delays and schedule logic issues are yet to be resolved. Also, MWAA and DTP continue to voice concern with WMATA’s and VDOT’s abilities to provide timely design review comments.

a. Critical Path Evaluation

The PMOC agrees with MWAA’s assessment regarding the critical path. *The Project will need to continue its efforts to resolve disagreements relative to the WFCY, critical path, logic and delay issues in order to minimize the risk of irretrievable schedule creep leading to costly schedule compression or constructive acceleration. However, recent improvements to the projected Revenue Operations Date (ROD) and WFCY completion dates demonstrate that recovery of the reported schedule losses are within the Project’s ability via work-arounds and schedule adjustments.*

b. Important Activities – 90 Day Look Ahead

The important milestones that are expected to be completed during the next 90 – days include the following:

- Completion of the engineering for the K-Line Tie-in (OP-1),
- Completion of the engineering for Tysons East Station (OP-4),
- Completion of the engineering for Tysons Central 123 Station (OP-5).
- *Completion of engineering for the Tysons East Aerial Guideway (OP-5a)*
- Completion of the engineering for NATM Tunnel (OP-6),
- Completion of utility relocation and engineering for Tysons Central 7 Station (OP-7).
- Property acquisitions for the Tysons West Aerial Guideway (OP-8).
- Completion of the engineering for the Tysons West Station (OP-8).
- Completion of the Wiehle Avenue Station AMEP Design (OP-10)

4. Project Cost

The SCC Budget and Expenditures summary for the period ending *April 25, 2010* is as follows. Overall, approximately 20% of the budget has been expended through *April 25, 2010*.

FTA SCC CODE	DESCRIPTION	BASELINE BUDGET	CURRENT BUDGET ¹	EXPENDED TO DATE	ESTIMATE AT COMPLETION
10	Guideway and Track Elements	\$ 666,500,284	\$ 634,500,680	\$ 80,761,962	\$ 634,500,680
20	Stations	\$ 317,023,977	\$ 315,699,620	\$ 18,915,336	\$ 315,699,620
30	West Falls Church Yard	\$ 51,789,538	\$ 51,484,608	\$ 2,618,012	\$ 51,846,378
40	Site Work & Utility Relocation - PE ²	\$ 24,000	\$ 24,000	\$ 24,000	\$ 24,000
40	Site Work & Utility Relocation - FD ³	\$ 232,936,985	\$ 232,686,867	\$ 78,094,098	\$ 231,464,883
50	Systems – FD	\$ 278,157,645	\$ 285,644,779	\$ 24,007,209	\$ 284,412,001
60	Right of Way Acquisition – FD	\$ 45,953,303	\$ 45,953,303	\$ 47,551,431	\$ 70,207,408
70	Vehicles – PE	\$ 526,000	\$ 526,000	\$ 526,000	\$ 526,000
70	Vehicles – FD	\$ 211,103,775	\$ 211,103,775	\$ 5,751,287	\$ 210,400,012
80	Professional Service – PE	\$ 170,881,000	\$ 170,902,413	\$ 170,902,413	\$ 170,902,413
80	Professional Service – FD	\$ 527,590,480	\$ 544,837,199	\$ 230,238,272	\$ 555,244,924
90	Contingency Mgmt. Reserve	\$ 130,000,075	\$ 139,123,820	\$ -	\$ 107,258,745
100	Finance Charge	\$ 509,984,571	\$ 509,984,571	\$ -	\$ 509,984,571
TOTAL (Federal portion)		\$ 3,142,471,634	\$ 3,142,471,634	\$ 659,390,020	\$ 3,142,471,634

1. Current budget equals FFGA amount plus approved Change Orders CO-001-045 except CO-0044, Directive Letters 001-010 except 005, UR-CO-001-020
2. Preliminary Engineering Period (PE) – Prior to May 25, 2008
3. Final Design Period (FD) – May 25, 2008 through *April 25, 2010*
4. Contingency to date includes Contingency Draw down Request (CDR) 001-101 except CDR's 36, 57, 87, 95, 97, 98 & 100 total \$3.7m
5. Estimate at Completion (EAC) includes changes and forecast.

a. Explanation of Variances

The major variance is the nearly \$24 million increase in the right-of-way (ROW) acquisition. This was due to a single property that had been anticipated as being a dedication having to be acquired by condemnation.

Monthly Cost Report - April 2010

DESCRIPTION	FFGA AMT. (Original)	EXPENDITURE TO DATE ¹	ESTIMATE TO COMPLETE	ESTIMATE AT COMPLETION
FEDERAL (FFGA SCOPE)				
Design-Build Contract				
Firm Fixed Price	\$ 1,112,052,172	\$ 307,961,551	\$ 1,049,774,213	\$ 1,357,735,764
Firm Fixed Price Insurance and Bonds	\$ 65,109,408	\$ 60,214,284	\$ 5,261,206	\$ 65,475,490
Firm Fixed Price Subtotal	\$ 1,177,161,580	\$ 368,175,836	\$ 1,055,035,419	\$ 1,423,211,254
Subcontract Allowance	\$ 430,199,817	\$ -	\$ 234,080,872	\$ 234,080,872
Design-Build Contract Prices	\$ 1,607,361,397	\$ 368,175,836	\$ 1,289,116,291	\$ 1,657,292,126
Indexed Commodity Escalation	\$ 77,469,926	\$ -	\$ 58,720,324	\$ 58,720,324
Design-Build Contract Total	\$ 1,684,831,324	\$ 368,175,836	\$ 1,347,836,614	\$ 1,716,012,450
Utility Relocation				
Utility Work	\$ 84,312,807	\$ 60,544,850	\$ 19,371,682	\$ 79,916,532
Terf Tax	\$ -	\$ -	\$ 0	\$ 0
Project Management and Final Design	\$ 8,423,426	\$ 13,905,853	\$ 489,831	\$ 14,395,684
Utility Relocation Total	\$ 92,736,233	\$ 74,450,704	\$ 19,861,513	\$ 94,312,216
Right of Way				
Right Of Way Total	\$ 42,443,132	\$ 47,551,431	\$ 22,655,976	\$ 70,207,408
WMATA Agreement				
Vehicles	\$ 195,138,329	\$ 6,277,288	\$ 188,157,279	\$ 194,434,567
Construction and Procurement	\$ 31,484,799	\$ 1,632,468	\$ 28,934,556	\$ 30,567,024
WMATA Force Account Startup	\$ 13,777,100	\$ 136,240	\$ 13,268,781	\$ 13,405,021
Project Management and Final Design	\$ 31,235,400	\$ 6,533,915	\$ 26,695,103	\$ 33,229,017
WMATA Agreement Total	\$ 271,635,628	\$ 14,579,911	\$ 257,055,717	\$ 271,635,628
Preliminary Engineering³				
Preliminary Engineering Total	\$ 100,968,646	\$ 93,650,225	\$ 7,318,422	\$ 100,968,646
Airports Authority Services				
General Conditions ²	\$ 28,879,153	\$ 3,405,018	\$ 23,464,666	\$ 26,869,684
MWAA Project Management and Wiehle Ave Garage	\$ 23,225,717	\$ 11,484,022	\$ 11,811,694	\$ 23,295,717
Project Management Support	\$ 90,004,649	\$ 46,092,873	\$ 47,484,710	\$ 93,577,583
Airports Authority Services Total	\$ 142,109,519	\$ 60,981,914	\$ 82,761,070	\$ 143,742,984
Contingency				
Contingency Total	\$ 297,762,579	\$ -	\$ 235,607,729	\$ 235,607,729
Finance Costs				
Finance Costs Total	\$ 509,984,571	\$ -	\$ 509,984,571	\$ 509,984,571
Total Federal (FFGA Scope)	\$ 3,142,471,634	\$ 659,390,020	\$ 2,483,081,613	\$ 3,142,471,634
INTERRELATED HIGHWAY IMPROVEMENTS				
Design-Build Contract				
Firm Fixed Price - Engineering	\$ 5,929,082	\$ 3,254,299	\$ 24,376,507	\$ 27,630,806
Firm Fixed Price Insurance and Bonds	\$ 2,889,450	\$ 2,630,134	\$ 377,240	\$ 3,007,374
Firm Fixed Price Subtotal	\$ 8,818,532	\$ 5,884,433	\$ 24,753,748	\$ 30,638,181
Subcontract Allowance	\$ 18,854,682	\$ -	\$ 18,854,682	\$ 18,854,682
Design-Build Contract Total	\$ 27,673,214	\$ 5,884,433	\$ 43,608,430	\$ 49,492,863
Utility Relocation				
Utility Work	\$ 31,552,369	\$ 33,539,383	\$ 8,009,742	\$ 41,549,125
Terf Tax	\$ -	\$ -	\$ -	\$ -
Project Management and Final Design	\$ 4,727,549	\$ 6,330,450	\$ 708,778	\$ 7,039,228
Utility Relocation Total	\$ 36,279,918	\$ 39,869,834	\$ 8,718,520	\$ 48,588,354
Right of Way				
Right Of Way Total	\$ 44,772,663	\$ 13,272,584	\$ 4,215,149	\$ 17,487,733
Airports Authority Services				
General Conditions ²	\$ -	\$ 1,289,148	\$ 126,108	\$ 1,415,256
Airports Authority Services Total	\$ -	\$ 1,289,148	\$ 126,108	\$ 1,415,256
Contingency				
Contingency Total	\$ 14,482,435	\$ -	\$ 6,224,023	\$ 6,224,023
Total Interrelated Highway Improvements	\$ 123,208,229	\$ 60,315,999	\$ 62,892,230	\$ 123,208,229
TOTAL PROJECT COST	\$ 3,265,679,863	\$ 719,706,019	\$ 2,545,973,843	\$ 3,265,679,863

¹ Reflects Costs through Apr 25, 2010

² The line item marked General Conditions includes Temporary Facilities Development, Hazardous Material Remediation, Miscellaneous Access Roads and Wiehle Ave Garage

³ Preliminary Engineering Period (PE) - Prior to August 1, 2007

b. Project Funding Sources: April 2010

SOURCES OF CAPITAL FUNDING	PERCENT AT COMPLETE	TOTAL	EXPENDED TO DATE ¹	PERCENT FUND SOURCE EXPENDED TO DATE	REMAINING
Sec 5309 New Starts Federal Funds					
PE Grant		\$ 54,412,526	\$ 54,412,526		\$ 0
Final Design Grant VA-03-0113-01		\$ 159,001,838	\$ 159,001,838		\$ 0
ARRA Grant VA-36-0001		\$ 77,260,000	\$ 77,260,000		\$ 0
Construction Grant VA-03-0113-02		\$ 28,809,000	\$ 0		\$ 28,809,000
FFGA Balance		\$ 580,516,636			\$ 580,516,636
Subtotal - New Starts	28.64%	\$ 900,000,000	\$ 290,674,364	32.30%	\$ 609,325,636
Other Federal Funds					
VA-95-X056-01		\$ 47,218,109	\$ 14,938,062		\$ 32,280,047
STP Balance		\$ 27,781,891			\$ 27,781,891
Subtotal - STP/Sec. 5307	2.39%	\$ 75,000,000	\$ 14,938,062	19.92%	\$ 60,061,938
Local Funds					
VTA 2000		\$ 51,700,000	\$ 51,700,000		\$ 0
Commonwealth Transportation Bonds ²		\$ 125,000,000	\$ 59,523,874		\$ 65,476,126
Fairfax County Funds ³		\$ 523,750,000	\$ 47,000,000		\$ 476,750,000
Dulles Toll Road Revenues ^{2,4}		\$ 1,467,021,634	\$ 195,553,720		\$ 1,271,467,914
Subtotal - Local Funds	68.97%	\$ 2,167,471,634	\$ 353,777,594	16.32%	\$ 1,813,694,040
Total Project Budget	100.00%	\$ 3,142,471,634	\$ 659,390,020		\$ 2,483,081,614
Interrelated Highway Activities		\$ 123,208,229	\$ 60,315,999		\$ 62,892,230
DTR Revenues/Commonwealth Funds³		\$ 123,208,229	\$ 60,315,999	48.95%	\$ 62,892,230
TOTAL		\$ 3,265,679,863	\$ 719,706,019		\$ 2,545,973,844

¹Reflects costs through April 2010.

²In 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.

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

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

5. Project Risks

The PMOC commenced the risk assessment process with the first workshop held April 4-7, 2006. Risk Assessment Workshops were held on June 12-14, 2007 and July 10-12, 2007 at the Project offices.

In August 2008, the PMOC was directed by the FTA 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 cost 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.

Through *April 25, 2010*, MWAA reports that it has utilized \$64,706,749 of the available authorized contingency of \$139,000,000 for Contingency Phases 1, 2 and 3. Phases 1 and 2 were to carry the Project through the completion of stations design which was anticipated to have been completed by the end of the third quarter of 2009. The completion of stations design is now anticipated during the third quarter of 2010. Phase 3 would complete the Utility Relocation Program now anticipated to complete in late June 2010. Of the total project contingency of \$297,762,579, the project has \$233,055,830 available. The impact of the completion of station design and utility relocation on the cost contingency must be determined and remains an unknown. MWAA presented information to the PMOC at the May 6, 2010 meeting which it feels justifies advancing to Contingency Phase 3. *The PMOC noted during the June 3rd meeting that the white paper only addresses schedule contingency and not cost contingency. MWAA will revise the white paper to include a discussion of cost contingency. The PMOC also requested that MWAA update the Risk Management Plan.*

With regard to Schedule Contingency, the Project has utilized 83 calendar days of the total of 510 calendar days. The balance in schedule contingency is 427 calendar days.

MWAA has been following their Risk Management Plan dated October 2008. The following are the Project's top 10 cost and schedule risks, along with their current status.

Top 10 Project Risks

Risk No.	Risk Description	SCC Reference	Risk Category		Status (Change from Previous Month)
			Cost	Sched	
M-21	Allowance items- a substantial part of the contract price is tied to "Allowance Subcontracts." There is potential risk for increased project cost and schedule if the actual subcontracts exceed the allocated cost and schedule components in the contract.	10, 20, 30, 40, 50	X	X	Unchanged. Nine of sixteen contracts have been awarded to date. The variance of the awarded cost versus allowance budget is \$11.87 million.
C-8	NATM tunnel--there are a limited number of qualified tunneling contractors, unforeseen conditions, tunnel collapse, production rate slower than anticipated, and possible critical path delay.	10.07	X	X	Unchanged. The contractor is self-performing this work. Mining construction has commenced, with 882-feet of excavation complete on the outbound tunnel and 663-feet of excavation complete on the inbound tunnel.
C-29	Soils Management – risk that costs for disposal of soil (clean and contaminated) may exceed budget.	40.1	X	X	Unchanged. Agreements with MWAA allow "clean" soils, which represent about 90% of all project soils to be transferred to Laydown Area #11, and management of contaminated soils is being mitigated as schedule progresses.
D-29	WFCY maintenance annex – Design constraints and WMATA requirements may erode the cost reductions anticipated.	30	X		Unchanged.
C-34	Utility companies performing utility relocation are not performing in accordance with the durations incorporated in the project schedule.	40.02	X	X	<i>Unchanged.</i> Replaced risk C-14. In recent months, utility contractors heavy spring rains and unforeseen obstacles. Mitigation efforts continue <i>and progress is being made.</i> However, the cost and schedule impacts are not yet known.

Risk No.	Risk Description	SCC Reference	Risk Category		Status (Change from Previous Month)
			Cost	Sched	
M-16	Cost risk for vehicle procurement – size and timing of base order and options could change the car manufacturer’s interest in project and proposal pricing; vehicles may not be available in time for revenue operations.	20.01 20.02	X	X	<i>Unchanged.</i> Bids were received on June 19, 2009. <i>The WMATA Board approved an award recommendation to Kawasaki on May 27, 2010. However, the delivery of the last car is not scheduled to occur until September 12, 2014 which does not support Project needs.</i>
M-12	Unpredictability of ROW settlement costs.	10.04	X		<i>Unchanged.</i> Use of condemnation has increased the ROW costs.
C-20	WMATA scope of work, including site access support, technical support and WMATA construction elements may exceed the budget and schedule. In addition, there is the risk that WMATA will have difficulty supporting the DB contractor’s requirements.	10.00 20.00 50.00	X	X	<i>Unchanged.</i> Technical support for design has been generally provided in a timely manner. SSWPs required to access WMATA property are lengthy. There is potential for this risk to increase as more DTP construction activities commence.
D-19	Cost of Dominion Virginia Power (DVP) 34.5 kV distribution – Level of design is not typical of 100% PE design.	50.04	X		<i>Unchanged.</i> Design of ductbank that will contain 34.5 kV power the length of project has been completed and the ductbank construction continues. Design by DVP to bring power to project has not been completed.
D-27	Permit Approvals – Potential delays due to the Virginia Department of Transportation (VDOT) requiring their review/approval of final design plans prior to Issued for Proposal (IFP) submittals. Potential delays due to the Department of General Services (DGS) making design-related comments rather than strictly permit/code comments.	10.00 20.00 40.00	X	X	<i>Unchanged.</i> The issuance of construction permits is taking longer than anticipated and the contractor is claiming that its costs are increasing. The Six Sigma process improved turn-around time with VDOT. The VDOT requirement for final design plans prior to IFP submittals may increase the risk. In addition, DGS is making design-related comments rather than strictly code/permit evaluations.

6. Action Items

MWAA – DULLES CORRIDOR METRORAIL PROJECT - Items for Grantee Action

PR	ITEM	IDENTIFICATION	NATURE of PROBLEM	D	A	I	COMMENTS	STATUS
1	2A.01	PMP Update (Nov. 2009)	MWAA's PMP needs to be updated to reflect the new integrated organization.	Y	N	N	The integrated organizational structure has been formally implemented, and the PMP is now being updated to reflect this. MWAA received the PMOC's comments from the PMP Compliance Review held on October 14, 2009. MWAA now anticipates updating the PMP by late <i>June</i> 2010.	R
<i>1</i>	<i>2B.01</i>	Final Testing Plan for Re-used Piers (Feb. 2010)	MWAA approved the final testing plan (Rev 0) proposed by DTP for the Re-used Piers on March 30, 2010.	Y	Y	<i>N</i>	<i>PDA tests were successfully conducted on pier 7IB on April 14, 2010. PDA tests were successfully conducted on piers 1-IB, 6-IB and 5A-OB and a successful static load test on pier 4-IB during the weekend of May 29, 2010. Successful PDA tests were conducted on 2-OB, 3-OB and 2-IB during the June 5, 2010 weekend. The remaining pier PDA test and the 2 static load tests are expected to be completed during the month of June 2010.</i>	<i>R</i>

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

ARRA	American Reinvestment and Recovery Act
BFMP	Bus Fleet Management Plan
CD	Calendar Days
CPM	Critical Path Method
DB	Design-Build
DGS	(Virginia) Department of General Services
DIAAH	Dulles International Airport Access Highway
DTP	Dulles Transit Partners, LLC
DVP	Dominion Virginia Power
FFGA	Full Funding Grant Agreement
FTA	Federal Transit Administration
FY	Fiscal Year
IFP	Issued for Proposal
MWAA	Metropolitan Washington Airports Authority
NATM	New Austrian Tunneling Method
<i>ORD</i>	<i>Operational Readiness Date</i>
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
RFMP	Rail Fleet Management Plan
RMP	Risk Management Plan
ROD	Revenue Operations Date
ROE	Right-of-Entry
ROW	Right-of-Way
SOE	Support of Excavation
SSCD	Scheduled Substantial Completion Date
SSMP	Safety and Security Management Plan
SSWP	Site Specific Work Plan
VDOT	Virginia Department of Transportation
W&OD	Washington and Old Dominion
WFC	West Falls Church
WMATA	Washington Metropolitan Area Transit Authority

APPENDIX E – PMOC TEAM PERFORMING THIS REVIEW

[REDACTED]

Appendix B - Project Overview and Map

Date: *June 18, 2010* (reporting current through *May, 2010*)

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 2300-car parking facility (provided through a joint development agreement), 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 is planning to purchase sixty-four vehicles for Phase 1 which will be procured by WMATA.

Ridership

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

Schedule

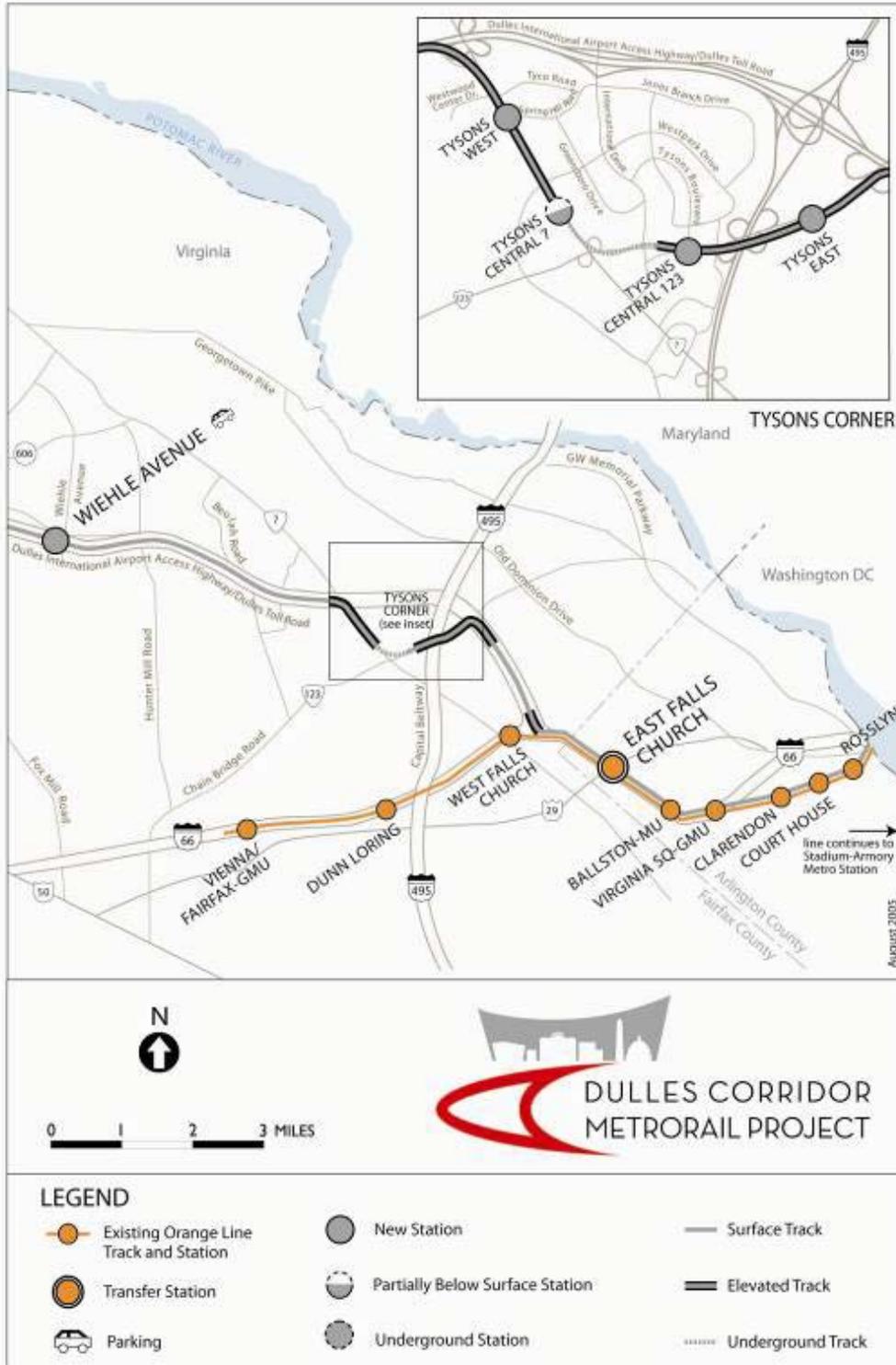
06/10/04	Approval to Enter PE	2011	Estimated Rev Ops at Entry to PE
05/12/08	Approval to Enter FD	12/04/13	Estimated Rev Ops at Entry to FD
03/10/09	FFGA signed	12/01/14	Estimated Rev Ops at FFGA
02/25/14	Revenue Operations Date (ROD) at date of this report		
14.0%	Percent Complete Construction at date of this report		
21.6%	Percent Complete Time based on ROD of December 1, 2014 (based on FFGA)		
32.6%	MWAA's Estimate of Project Earned Value through <i>April 2010</i>		

Cost

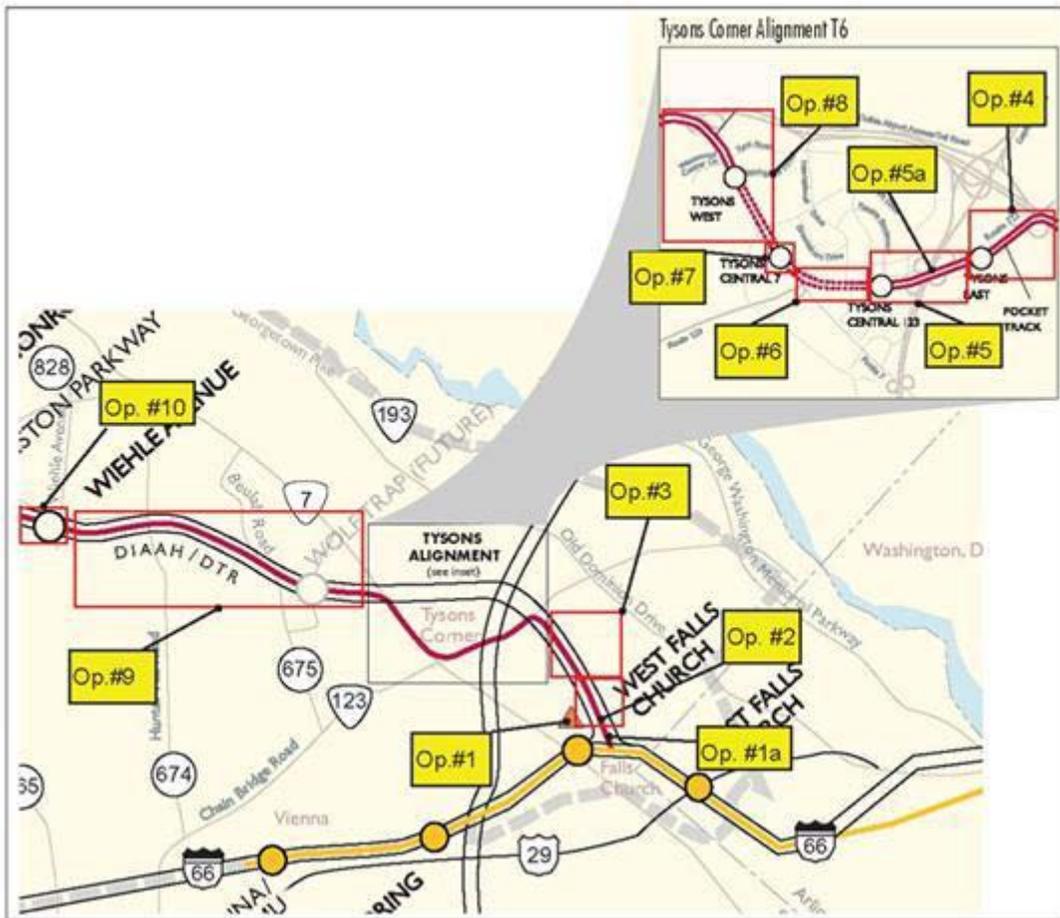
\$1.490 billion	Total Project Cost (\$YOE) at Approval to Enter PE
\$2.961 billion	Total Project Cost (\$YOE) at Approval to Enter Final Design
\$3.142 billion	Total Project Cost at date of report including \$510 million in Finance Costs
\$ 659.0 million	Expenditures to date from total project budget of \$3.142 billion
21%	Percent complete based on expenditures to date
\$210.4 million	Total project contingency remaining (allocated and unallocated)

Project Map

APPENDIX B – METRORAIL EXTENSION TO WIEHLE AVENUE



Operational Areas



APPENDIX C – MWAA SAFETY AND SECURITY CHECKLIST

Project Overview			
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	<i>Version</i>	<i>Review By FTA</i>	Status
Safety and Security Management Plan	9/2009		Accepted
Safety and Security Certification Plan			Under development; 98% complete
System Safety Program Plan			WMATA sent the SSPP to TOC on November 13, 2009, and comments were sent back to WMATA. WMATA submitted a revised SSPP to TOC in March 2010 which is under review by TOC.
System Security Plan or Security and Emergency Preparedness Plan (SEPP)			WMATA sent the SEPP to TOC on November 12, 2009, and comments were sent back to WMATA. WMATA submitted a revised SEPP to TOC in March 2010 which is under review by TOC.
Construction Safety and Security Plan			Addressed in PMP which 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	
Has the oversight agency reviewed and approved the grantee's SSPP as per 659.17?	N	WMATA's SSMP will be used. SSMP, Rev.1 dated 6/4/09
Has the oversight agency reviewed and approved the grantee's Security Plan or SEPP as per Part 659.21?	N	
Did the oversight agency participate in the last Quarterly Program Review Meeting?	N	
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		
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
Does the grantee maintain a regularly scheduled report on the status of safety and security activities?	N	WMATA
Has the grantee established staffing requirements, procedures and authority for safety and security activities throughout all project phases?	N	WMATA
Does the grantee update the safety and security responsibility matrix/organizational chart as necessary?	N	WMATA
Has the grantee allocated sufficient resources to oversee or carry out safety and security activities?	N	WMATA
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.		
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, 98% complete.
Has the grantee verified conformance with safety and security requirements during testing, inspection and start-up phases?	N	After SSCD
Does the grantee evaluate 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	Y	
Has the grantee issued final safety and security certification?	N	
Has the grantee issued the final safety and security verification report?	N	
Construction Safety		
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	N	

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?		
Does the grantee conduct site audits of the contractor's performance versus required safety/security procedures?	Y	
Federal Railroad Administration		
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 – ACTION ITEMS

MWAA – DULLES CORRIDOR METRORAIL PROJECT - Items for Grantee Action

PR	ITEM	IDENTIFICATION	NATURE of PROBLEM	D	A	I	COMMENTS	STATUS
1	2A.01	PMP Update (Nov. 2009)	MWAA’s PMP needs to be updated to reflect the new integrated organization.	Y	N	N	The integrated organizational structure has been formally implemented, and the PMP is now being updated to reflect this. MWAA received the PMOC’s comments from the PMP Compliance Review held on October 14, 2009. MWAA anticipates updating the PMP by late June 2010.	R
1	2B.01	Final Testing Plan for Re-used Piers (March 2010)	MWAA approved the final testing plan proposed by DTPRev.0) for the Re-used Piers on March 30, 2010.	Y	Y	N	The final testing plan (Rev.0) was approved by MWAA on March 30, 2010 PDA tests were successfully conducted on pier 7IB on April 14, 2010. <i>PDA tests were successfully conducted on piers 1-IB, 6-IB and 5A-OB and a successful static load test on pier 4-IB during the weekend of May 29, 2010. Successful PDA tests were conducted on 2-OB, 3-OB and 2-IB during the June 5, 2010 weekend. The remaining pier PDA test and the 2 static load tests are expected to be completed during the month of June 2010.</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.