

COMPREHENSIVE MONTHLY REPORT

March 2012

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

April 26, 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

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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 *April 10, 2012* to conduct a monthly progress review meeting. The full time on-site PMOC representative attended various project meetings and site tours throughout this reporting period. Additional information for this report was obtained from MWAA during the *second week of April 2012*. Future PMOC monthly progress meetings are planned to occur on the first Tuesday 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 \$524.5 million in Section 5309 New Starts funds for the Project. The FTA has awarded \$404,483,364 in Section New Starts and \$68,499,999 in STP funds to date for the Project.

2. Project Status Summary

The PMOC met with MWAA on *April 10, 2012* to conduct a monthly progress review meeting. The status information is as of *March 31, 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. 19 was held on April 12, 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 *May 30, 2012* compared to the baseline completion date of October 24, 2011, *a slippage of 149 days. FDR meetings have been completed; 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 on December 21, 2011 with a June 12, 2015 delivery date for the 64th railcar, which is more than six months beyond the FFGA completion date for the DCMP. MWAA informed the FTA's Regional

Administrator for Region III by letter on January 31, 2012 of the delay due to the March 2011 tsunami/earthquake.

- **Design progress** - Overall project design remains at 99% complete as of the end of *March 2012*. *Revised designs for the Tysons West Station pedestrian bridges and pavilions were completed and permitted on March 23, 2012. The revised designs for the Tysons Central 123 Station pedestrian bridges and pavilions are nearly completed and expected to be submitted to DGS for permitting in late April 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. The **Battelle “Safety Analysis Review and Assessment”** remains behind schedule, with the review of proprietary data at Alstom’s facility in Rochester, NY. During Battelle’s November interviews with Alstom, it was discovered that there were another ten documents Battelle felt needed to be reviewed before completing their draft report. *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. Battelle anticipates submission of its draft report to MWAA by May 11, 2012 for review. 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 70% complete. Significant accomplishments for *March* included *completion of the segmental box girder installation on the Tyson East Guideway with Launch Girder Truss LG1; 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 MARCH 2012			
GUIDEWAYS AND TRACKWAYS	% COMPLETE	STATIONS	% COMPLETE
Tysons East Guideway	99%	Tysons East	48%
Tysons West Guideway	89%	Tysons Central 123	44%
O-3 Trackway	94%	Tysons Central 7	30%
O-9 Trackway	94%	Tysons West	31%
<i>Systems</i>	9%	Wiehle Avenue	52%
<i>Trackwork</i>	27%		

- **The DTP Schedule Update** with a data date of *February 25, 2012* “Mitigation Schedule” showed a -27 calendar day loss as compared to the -20 loss reflected in the *January 25, 2012* update. MWAA and DTP continue to negotiate the mitigation schedule related RFC’s 160

and 161 costs and anticipate a lump sum settlement in *late April 2012*. MWAA reported during the *April 10, 2012* monthly meeting that they have agreed to the costs and *are continuing to work on scope related language issues* for the change order.

With regard to the West Falls Church Yard (WFCY) completion date, MWAA reported during the *April 10* monthly update meeting that *on-going discussions with DTP have finally yielded positive results*. DTP's schedule update of *February 25, 2012* reflected a WFCY completion date of *January 31, 2014* which represents a *+110 calendar day 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*. MWAA also reported that the *WFCY schedule has now been incorporated into the master schedule*.

- **Budget** status as of *February 25, 2012* indicates that *\$1,801,068,034* (66%, excluding the remaining contingency and finance charges) has been expended of the *\$3,142,471,634* budget total. MWAA reports *\$223,563,420* (98%) of the available contingency for the first seven contingency milestones has been drawn down to date with a remaining contingency balance of *\$2,936,580* (2%) available through the current phase of construction. **The federal portion of the Allowance Items recommended for award and yet to be awarded is estimated to be \$40.8 million over budget. This amount has not yet been drawn down. Therefore, the project could be officially over budget in the near future unless MWAA resolves the following issues.** MWAA acknowledges a *\$71.8 million* in potential source of an increase in contingency from a reduction in budgeted Finance Charges that they could use to make up a portion of this deficit. MWAA will address this change in the near future. 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 committed to *completing their* assessment of *Additional Scope – non-FFGA items* (CNPAs) and submit their results to the PMOC/FTA in *April*.
- MWAA's estimate of the **Earned Value** for the Project through *February* is *71.6%*.
- **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 *March* is *1,559* which is a decrease of *64* from the *February* actual of *1,623*. *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

FFGA-MWAA Core Accountability Items			
Project Status:		Original at FFGA:	Current Estimate*:
Cost	Cost Estimate	\$3.142B	\$3.142B
Contingency	Unallocated Contingency		
	Total Contingency (Allocated plus Unallocated)	\$297.76M	\$10.79M
Schedule	Revenue Service Date	<i>December 1, 2014</i>	<i>December 27, 2013</i>
Total Project Percent Complete		Based on Expenditures**	66%
		Based on Earned Value	71.6%
Major Issue	Status	Comments/Action/Planned Action	
Contingency/CNPAs (Additional Scope non-FFGA)	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.	<i>The FTA, PMOC MWAA met on April 10, 2012 to review their respective lists of CNPAs (additional scope-non-FFGA) and MWAA is to submit their final list in April 2012.</i>	
Date of Next Quarterly Meeting:		<i>May 9, 2012</i>	

Note: * Through February 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 remaining Allowance Items (\$40.8 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 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 10th Update Meeting to review its findings with regard to CNPAs. *Based on those discussions, MWAA is to submit their final list of CNPAs through February 2012 to the FTA in April.*

The Project *continues* working according to an agreed "Mitigation Schedule". The mitigation schedule with a data date of *February 25, 2012* with a -27 calendar variance to the contract schedule reflects an SSCD of *September 19, 2013*. MWAA issued Directive Letter #35 on November 1, 2011 to authorize implementation of the Mitigation Schedule. Associated cost negotiations are currently underway with an anticipated lump sum settlement expected in late *April 2012*.

DTP has incorporated the *West Falls Church Yard construction into the mitigation schedule with a completion date of January 14, 2014, a +110 calendar day improvement*. MWAA continues to negotiate with DTP and is expecting to reach agreement on a date of December 2013 for completion of the WFCY. 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 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 64th DCMP rail cars on June 12, 2015. This schedule does not meet the FFGA Revenue Service Date (RSD) date of December 1, 2014. The FTA Regional Administrator for Region III was formally informed of the delay via MWAA 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." In the PMOC's opinion, WMATA's struggle to meet current daily car requirements makes questionable their ability to provide the additional cars required for the Dulles Phase 1 testing and revenue service and therefore full revenue service by the FFGA RSD is still in jeopardy. 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 six and eight car trains*. This issue remains a concern of the FTA and PMOC. *The FTA has requested WMATA submit this interim plan as part of the Rail Fleet Management Plan (RFMP). 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 12th with the request that the comments be incorporated and the final document then be formally submitted to the FTA Regional Administrator.*

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.

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 *February* 2012. In this update DTP reported a possible delay of -27 calendar days to the SSCD forecasted by DTP to occur on *September 19, 2013*. DTP's Critical Path No. 1 in their *February 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 *March 23, 2012*.

- MWAA continues to monitor expenditures to date and to update the estimate at completion. Through *February 25, 2012*, MWAA has drawn down \$233,563,420 of the Phases 1 through 7 *contingency* of \$236,500,000. The contingency utilization reflects expended costs. There is an additional \$53.4 million in obligated contingency in Phases 8 through 12.

- 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 *March 2012* there has been a cumulative total of 9,828,650 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. This was a good first meeting that will be followed up with another comment resolution meeting in mid-April.* 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 fourth quarter of 2011 on January 31, 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.

Revised designs and permitting for the Tysons Central 123 pedestrian bridge and *pavilion is expected to be completed in mid-April 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 *February 2012*, DTP has awarded \$416,933,100 worth of the \$437,278,511 federally funded Allowance Items Budget to subcontractors and suppliers with an \$85,774,557 overrun for 31 of 36 sub-contract packages awarded thus far. In addition, MWAA has Allowance Items recommended for Award, but not yet awarded, worth \$130.2 million, which is *an additional \$40.8 million* over budget. The \$40.8 million does not include the remaining allowance items yet *to be awarded*, including Pavilion and Pedestrian Finishes (C3), Stonework and Tile (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 70% 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. Continued installing conduits and equipment including the Automatic Transfer Switch (ATS) inside the existing Traction Power Substation (TPSS) at Fisher Avenue. Continued with Automatic Train Control (ATC) testing inside the Train Control Room (TCR) at Fisher Avenue. Continued installation of the special track work and ballasted track west of the WFCY lead tunnel in the Dulles Connector Road (DCR) median. Completed installation of track emergency guardrail on the O-1 Guideway. Completed surfacing and aligning ballasted track between Idyllwood Road and the Tysons East Guideway abutment. Continued installation of contact rail and cover boards in the DCR median. Continued construction of Stage 2B of the WFCY Cut and Cover Tunnel in the right lane of the EB DCR. Continued installation of the waterline and fire hydrant outside of the WFCY. Continued static testing of traction power and TCR at Plainfield and Baldwin. Continued installation of trackside ATC equipment in the DCR median.*

- **Operations Area OP-4/5A (Tysons East Guideway/Station/I-495 Crossing)** – Completed segmental box girder guideway erection with Truss LG1 completing spans 48-IB, 48-OB, 49-IB and 49-OB for a total of eighty-six spans completed to date. Completed emergency guardrail and direct fixation track installation on the guideway west of the double crossover. Continued cable trough and plinth construction west of the Tysons East Station. Continued rebar and concrete construction of the platform slab on the bulb tees at the Tysons East Station. Continued installation of architectural precast panels and MEP installations at the Tysons East Station. Continued CMU installation of the mezzanine service rooms. Continued installation of duct banks to TPSS #3. Completed installation of the precast TCR building at the platform level of the Tysons East Station. Continued ground level foundation work at the Tysons East pedestrian bridge pavilion at Colshire Drive. Completed driving piles for the pedestrian bridge support next to the Tysons East Station and started the pile cap construction.
- **Operations Area OP-5 (Tysons Central 123 Station)** – Continued setting precast panels. Completed erecting mezzanine structural steel and continued structural steel erection for TPSS #4. Continued raceway installation for the AC switchgear and battery rooms. Continued rebar and concrete construction of the platform slab. 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 walls for the East Ventilation Structure. Continued backfilling operations at the east cut and cover tunnel. Continued installation of the direct fixation track and plinths in the IB tunnel and began track and plinth installation in the OB tunnel.
- **Operations Area OP-6 (West Cut and Cover Tunnel)** – Continued rebar and concrete construction of fan room walls and the roof for the East Ventilation Structure. Completed installation of the direct fixation track and plinths in the IB and OB tunnels. Began waterproofing of the exterior walls of the West Ventilation Structure.
- **Operations Area OP-7 (Tysons Central 7 Station)** – Continued forming and pouring barrier walls adjacent to Route 7. Completed pouring station columns. Completed concrete roof deck at the TPSS #5. Continued raceway installations for the AC and communications cables. Implemented road shifts at EB Route 7 for the pedestrian bridge construction. Mobilized pile driving rig to start on the pavilion foundation.
- **Operations Area OP-8 (Tysons West Station/Guideway)** – Continued guideway segmental girder erection with Truss LG2 completing spans 38-IB, 38-OB, 39-IB, 39-OB, 40-IB, 40-OB, 41-IB, 41-OB, 42-IB, 42-OB, 43-OB and 43-IB for a total of sixty-two completed to date. Continued rebar and concrete construction of the slab on grade at the ground level of Tysons West Station. Completed setting the platform precast bulb tees at the Station. Continued installing acoustical panels on elevated guideway between Gosnell and Westwood Center Drive. Began CMU walls at the station ground and mezzanine levels. Completed approach walls at Abutment B and continued backfill operations.

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. Completed duct banks and building pads for TPSS #7. Delivered and set the TCR facilities at TPSS #7 and TPSS #9 and the Communications Room at TPSS #8. Continued ballasted track construction between the W&OD Trail and Wiehle Avenue. Continued installation of emergency crossover gates between DIAAH and the Toll Road.

- **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 pulling cables at the station switchgear and battery rooms. Continued light fixture installation in the mezzanine service rooms. Installed TCR racks at the Wiehle Avenue Station. Completed pile driving at the south side of the Dulles Toll Road for the pedestrian bridge foundation. Poured columns for the intermediate pedestrian bridge pier #6 at the south side of the station and pier #2 on the north side. Began slab construction of land bridges at the Williams Transco pipelines west of the Wiehle Avenue Station. Continued ballasted track construction west of the Wiehle Avenue and on the OB track through the Wiehle Avenue Station.
- **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 March 2012, 97 of the 102 parcels required for the Project have been acquired. The table below summarizes acquisition activities for the Project through March 2012.

PARCELS ACQUIRED¹ (Number of parcel packages)

LOCATIONS	TOTAL	Period			To Date		
		Planned ²	Actual	Var	Planned ²	Actual	Var
Route 66 / DCR	1	0	0	0	1	1	0
Route 123	23	0	0	0	23	21	(2)
Route 7	51	0	0	0	51	49	(2)
DIAAH	27	0	2	2	27	26	(1)
TOTAL	102	0	2	2	102	97	(5)

- Notes: 1. Parcels acquired through recordation of deed/easement and filing of Certificates of Take. These values include rights obtained for another 39 parcels for which Certificates of Take have been filed.
 2. Planned values are based on the March 31, 2011 Property Acquisition Status Update.

Condemnation Status

Thirty-nine parcel packages have been obtained with the filing of thirty-three Certificates of Take. *In the latter part of February and in March 2012, the Final Order for three cases were filed (Parcel 56, HBL Mercedes/George C. Andreas, Tr, et al, Parcel 29, Westpark Corporate Center, LLC, and Parcel 69, Wolfrap Foundation) one case continues to work toward 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). The trial for Parcel 69 was held in March with a judgment for \$603,000 which was an increase of \$281,063 more than the certificate amount. The judgment plus an estimated interest of \$18,573.26 brings the total additional compensation to \$299,636.26 subject to the final interest payment value.*

d. Utility Coordination

Utility relocation work continued through *March 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 *March 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 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 March. Punch list work remains.*
- **Route 7 (Tyco/Westwood to Dulles Toll Road)** – *DVP continued installing conduit to hand holes and switch pads and set switch pads and switches at TPSS #6.*
- **DIAAH West -- (Route 7 to Wiehle Avenue)** – *Lane continued punchlist 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 64th car would be delivered by September 12, 2014 based on a July 12,

2010 notice to proceed (NTP), but WMATA did not issue the Notice-To-Proceed (NTP) until August 16, 2010. Thus, the contract indicated that the 64th 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 “sufficient resources including railcars will be available to support dynamic testing and initial revenue service in accordance with the Project’s current schedule.” WMATA went on to say that cars from the existing fleet will 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 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 baseline schedule date of March 30, 2011. At the 7K Monthly Progress Review meeting held on *April 12, 2012*, Kawasaki reported that current Final Design Review (FDR) completion date is *May 30, 2012* compared to the baseline completion date of *October 24, 2011, 149 days behind schedule. 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 of March 11, 2011. On December 21, 2011, WMATA approved Kawasaki’s Mitigation Schedule with a June 12, 2015 delivery date for the 64th railcar, which is more than six months beyond the FFGA completion date for the DCMP. MWAA formally informed the FTA Regional Administrator for Region III in a letter dated January 31, 2012.

The contractual milestones for this procurement are:

Activity	Original Planned Date	Mitigation Schedule Date	Actual Date
Notice to Proceed	July 12, 2010	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	<i>March 16, 2012</i>
Approval of Master Test Plan	August 23, 2011	February 7, 2012 <i>(Now April 30, 2012)</i>	
Approval of A-Car Mock-up	October 24, 2011	March 8, 2012 <i>(Now April 30, 2012)</i>	
Final Design Review Submission	October 31, 2011	February 1, 2012	
Final Design Review Complete	December 1, 2012	March 22, 2012 <i>(Now May 30, 2012)</i>	
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 th 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.

f. Safety and Quality Status

MWAA participated in *five* safety walk downs with DTP during the month of *March*. All were related to Design-Build work. As of *March 31, 2012*, DTP had logged 9.828 million project man-hours with *306 first* aid cases and four lost time cases. There have been a total of 676 incident investigation reports, 83 utility hits and 15 vehicular accidents.

Revision 5 of the 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. This was a good first meeting that will be followed up with another comment resolution meeting in mid-April.* 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 have been expressing 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 those concerns. *DCC No. 7 which has been revised twice was finally accepted on April 10, 2012. Submission No. 8 will now soon follow.*

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 is currently under review. This CCC is intended to be the model for the remaining construction submissions.*

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 7th* 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 March 20, 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 March 2012, MWAA performed the following QA audits/surveillances:

- *Quality Records Audit – DTP Records System: MWAA conducted an audit on March 5, 2012. There was one issue and two recommendations. A response is due in late April 2012.*
- *Truland Walker Seal (Communications): DTP/MWAA conducted an audit on March 7, 2012. There was one observation requiring a response requested by late April 2012.*
- *Powell Electric (Traction Power): DTP/MWAA conducted an audit on March 12, 2012. There were no issues. A report will be issued and the audit will be closed in late April 2012.*
- *Lane Construction (WFCY): MWAA conducted an audit on March 14, 2012. There were two issues not requiring a response. The Audit was closed on March 16, 2012.*
- *MWAA QA Program: An MWAA/QA audit was conducted by STV on March 21, 2012. There were six observations. A response is due in late April.*
- *Alstom Signaling (Automatic Train Control): DTP/MWAA conducted an audit on March 28, 2012. There was one observation requiring a response due in late April.*

The MWAA QA Audit and Surveillance Schedule through June 2012

Tentative Date	Audit (A) Surv. (S)	Organization/Activity	Joint Audit/Surv.	Lead
4/04-05/12	A	F.H. Paschen (Station Finishes)	Y	DTP
4/11/12	S	DTP Subcontractor/Supplier Submittal Process: DTP/Subcontractors Nonconformance Control Systems	N	MWAA

Tentative Date	Audit (A) Surv. (S)	Organization/Activity	Joint Audit/Surv.	Lead
4/12-13/12	S	DTP Environmental	N	MWAA
4/18-19/12	A	Turner Construction (Shell Enclosure Trades)	Y	DTP
4/25-26/12	A	Special Inspector CTI QA Program	N	MWAA
5/02-03/12	A	Kone (Elevators and Escalators)	Y	DTP
5/09-10/12	A	DTP Startup and Test Program	Y	MWAA
5/16-17/12	A	A&A Industrial (Tunnel Ventilation)	Y	DTP
5/30-31/12	A	Delta Construction Company	Y	DTP
6/06-07/12	A	DTP System Safety and Security Program	N	MWAA
6/13-14/12	A	Facchina Construction	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 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.

MWAA's **Risk and Contingency Management Plan (RCMP)**, formerly called a Risk Management Plan (RMP), dated October 2008 was reviewed and accepted by the FTA. The PMOC requested MWAA to begin the process to update the RMP by the end of the summer 2010 with a meeting to discuss the update to be scheduled after MWAA completed their risk plan update. A consultant submitted a draft of the Risk Analysis, a primary component of the RCMP, to MWAA in December 2010. MWAA and the PMOC discussed the draft on January 26, 2011 and determined that some refinements were needed. Numerous refinements and meetings to discuss those refinements occurred throughout 2011. MWAA submitted the Final Draft of RCMP – Rev. 2b on November 23, 2011. At the December 7 update meeting the PMOC expressed concern that the document did not address the PMOC's comments of November 18, 2011 relative to the Top Ten Risks and Risk Register that was submitted by MWAA on November 10, 2011. Another meeting was conducted on January 4, 2012 to address these remaining issues. MWAA updated the top ten risks and the risk register and separated risks R23 and R31 as discussed. During the February 2, 2012 follow-up meeting, the PMOC agreed with the changes and requested that MWAA incorporate them into the RCMP. FTA requested that

MWAA update their Project Management Procedures to address Directive Letters and Contingency Drawdown Procedures as well. MWAA submitted the revised RCMP Rev. 3 on March 28, 2012, which was recommended for acceptance by the PMOC. *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 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. WMATA submitted the revised draft RFMP on September 17, 2010 and a draft Spot Report summarizing the PMOC's review findings was issued to the FTA on November 8, 2010. The PMOC held a meeting with WMATA on November 15, 2010 to review the findings. The PMOC reviewed the RFMP dated January 31, 2011 and recommended that the FTA not accept the document. On March 1, 2011, the FTA Regional Administrator requested that WMATA revise and resubmit the RFMP. WMATA hired a consultant to prepare the revised RFMP. WMATA submitted the revised RFMP (Rev. 3D) dated July 27, 2011 to the FTA on July 29, 2011; the FTA and PMOC reviewed this version and FTA forwarded comments to WMATA on August 24, 2011. The PMOC met with WMATA to discuss the development of the RFMP and the PMOC's comments on September 29, 2011. WMATA Submitted RFMP Rev4B to the FTA on October 21, 2011. The PMOC reviewed the document and submitted comments to WMATA on November 7, 2011. FTA met with WMATA staff to discuss any remaining items on January 20, 2012, and WMATA submitted another draft RFMP in February. 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 12th with the request that the comments be incorporated and the final document then be formally submitted to the FTA Regional Administrator.

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 February 25, 2012. The primary critical path identified by DTP showed a -27 day loss as compared to a -20 loss reflected in the January 25, 2011. DTP's schedule shows the Revenue Service Date to be January 23, 2014. The FFGA RSD is December 1, 2014. MWAA completed its schedule review and wrote letter 06416 dated March 23, 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 and DTP continue to negotiate the mitigation schedule related to RFC160 and RFC161 and anticipate a lump sum

settlement in late *April 2012*. MWAA *reiterated* during this meeting that they have a cost agreement and are currently debating the scope language for the change order.

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 *February 25, 2012*

ACTION	WORK DAYS
Total Excusable Days of Delay on Project Critical Path requested by DTP	57
Contractually Identified	18
Retracted by DTP	3
Denied by MWAA	19
Under evaluation by MWAA	0
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 February 25, 2012 shows the WFCY completion date as January 31, 2014 which is a +110 improvement from the previous month. MWAA reported during the April 10th monthly update meeting that on-going efforts continue to bring them closer to a desired completion date in the 3rd week of December 2013. The WFCY schedule remains under discussion and refinement.

DTP's March 25, 2012 schedule update reflects a +14 improvement to the RSD. It therefore appears to the PMOC that the mainline schedule losses *remain* under control and are being recovered. The WFCY scheduled completion date improvements also mitigate potential adverse impacts to the mainline start-up activities. These improvements lower the potential for large claims for extended overhead costs related to the Contract Completion Date and strengthen the PMOC's confidence 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 February 2012 Schedule Update, Critical Path No. 1, LG #2 precast segmental erection operations of the Tysons West Guideway outbound of Tysons West Station, has a -27 calendar day float for achieving SSCD on September 19, 2013. In the January 2012 update period, DTP implemented the “LG #2 only Scenario” into the Project schedule. This changed the Mitigation Recovery Schedule plans of re-mobilizing LG #1, after erection of the last Span 49 on the Tysons East Guideway, to Span 55 on the west end of the Tysons West Aerial Guideway for erection of Spans 55 through 48, progressing inbound of the Tysons West Guideway abutment.

The revised plan involved decommissioning LG #1 after completion of the Tysons East Guideway (Span 49) with LG #2 continuing segmental erection of Spans 48 though 55 of Tysons West Guideway. This revision further delayed the completion of the Tysons West Aerial Guideway by 30 calendar days. DTP continues to implement additional double-shifts for segmental erection on four spans, resequencing logic ties between segmental erection activities, trackwork subcontractor Delta’s activities and self-performed wayside installations to mitigate the delays. MWAA has communicated to DTP, via MWAA Letter No. 06282 dated February 21, 2012, that this planned schedule compression will potentially involve inefficiencies and also increased risks to the Project delivery. Nonetheless, MWAA agreed with DTP’s Critical Path No. 1 (LG #2) in the February 2012 Schedule Update, as presented, while taking exceptions as noted below:

- 1. DTP, while revising durations and work-shifts on some segmental erection activities to account for erection over live traffic and other complexities, did not assign appropriate durations for segmental erection of several other spans which could be potentially impacted by similar issues. MWAA’s analysis, after making appropriate duration adjustments, shows that completion of the Tysons West Aerial Guideway will take approximately 12 calendar days longer than forecasted by DTP.*
- 2. DTP’s Critical Path No. 1 includes several activities with durations over 20 work days, which are not in accordance with the contractual requirements.*

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 ongoing 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. *In addition, the “LG #2 only Scenario” adds additional risk that could prove hard for recovery should the girder crane become inoperable.*

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	January 2012	February 2012
Receipt of FFGA	03/03/09 ¹	03/10/09 A	03/10/09 A	03/10/09 A
Station Design Complete	10/21/09	02/18/11	10/28/11 A	10/28/11 A
Utility Relocation Complete	03/05/10	09/13/11	3/01/12	1/31/12 A
Aerial and Station Foundations Complete	3/4/11	09/01/11	07/23/11 A	07/23/11 A
NATM Tunnels Mined	01/29/11	12/03/10 A	12/03/10 A	12/03/10 A
K-Line Tie-In	12/23/11	03/28/12	10/14/11 A	10/14/11 A
Guideway Complete	2/12/12	09/13/12	10/24/12	10/30/12
Train Control Complete	10/26/12	10/29/12	12/20/12	1/15/13
Substantial Completion	07/31/13	07/31/13	09/12/13	9/19/13
Revenue Operations - Target	11/27/13	01/20/14	01/16/14	1/23/14
FFGA Revenue Operations	12/01/14	12/01/14	12/01/14	12/01/14

^A Actual Date ¹ 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.
- 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 *February 25, 2012* is as follows. Overall, approximately 66% of the budget (excluding contingency and finance charges) has been expended.

FTA SCC CODE	DESCRIPTION	BASELINE BUDGET	CURRENT BUDGET ¹	EXPENDED TO DATE	ESTIMATE AT COMPLETION
10	Guideway and Track Elements	\$ 666,500,284	\$ 639,818,210	\$ 529,939,869	\$ 639,818,210
20	Stations	\$ 317,023,979	\$ 307,893,018	\$ 144,068,799	\$ 307,893,018
30	West Falls Church Yard	\$ 51,789,539	\$ 65,806,533	\$ 6,988,964	\$ 65,825,594
40	Site Work & Utility Relocation	\$ 232,936,987	\$ 242,652,139	\$ 203,722,081	\$ 271,699,567
50	Systems	\$ 278,157,645	\$ 311,956,891	\$ 121,954,401	\$ 308,807,007
60	Right of Way Acquisition	\$ 45,953,303	\$ 67,631,026	\$ 60,166,147	\$ 65,011,618
70	Vehicles	\$ 211,629,775	\$ 195,138,329	\$ 33,803,886	\$ 194,434,567
80	Professional Service	\$ 698,471,472	\$ 712,814,045	\$ 634,624,579	\$ 768,200,265
90	Contingency Mgmt. Reserve	\$ 130,000,075	\$ 88,776,872	\$ -	\$ 10,797,219
100	Finance Charge	\$ 509,984,571	\$ 509,984,571	\$ 65,799,308	\$ 509,984,571
TOTAL (Federal portion)		\$ 3,142,471,635	\$ 3,142,471,635	\$ 1,801,068,035	\$ 3,142,471,635

1) Current budget equals FFGA amount plus approved Change Orders CO-001-081, 083-112, 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 MWA, PMSS and VDOT. In addition, WMATA budget transfers are treated as forecast adjustments.
9. SCC90 – Contingency Management Reserve estimate at completion of \$10.8M 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, February 2012

DESCRIPTION	FFGA AMOUNT (Original)	EXPENDITURE TO DATE ¹	ESTIMATE TO COMPLETE	ESTIMATE AT COMPLETION	PERCENT OF EAC EXPENDED TO DATE ⁷
FEDERAL (FFGA SCOPE)					
Design-Build					
Firm Fixed Price	\$ 1,112,052,173	\$ 1,193,407,971	\$ 447,621,321	\$ 1,641,029,292	
Firm Fixed Price Insurance and Bonds	\$ 65,109,408	\$ 67,056,380	\$ 2,644,236	\$ 69,700,616	
Firm Fixed Price Subtotal	\$ 1,177,161,581	\$ 1,260,464,352	\$ 450,265,557	\$ 1,710,729,909	
Subcontract Allowance	\$ 430,199,817	\$ -	\$ 95,070,238	\$ 95,070,238	
Design-Build Contract Prices	\$ 1,607,361,398	\$ 1,260,464,352	\$ 545,335,795	\$ 1,805,800,146	
Indexed Commodity Escalation	\$ 77,469,926	\$ -	\$ 47,309,745	\$ 47,309,745	
Design-Build Contract Total	\$ 1,684,831,325	\$ 1,260,464,352	\$ 592,645,540	\$ 1,853,109,892	68%
Utility Relocation					
Utility Work	\$ 84,312,807	\$ 100,676,183	\$ 9,511,332	\$ 110,187,515	
Terf Tax		\$ -	\$ 0	\$ 0	
Project Management and Final Design	\$ 8,423,426	\$ 19,833,825	\$ 450,815	\$ 20,284,640	
Utility Relocation Total	\$ 92,736,233	\$ 120,510,008	\$ 9,962,148	\$ 130,472,155	92%
Right of Way					
Right Of Way Total	\$ 42,443,132	\$ 60,455,811	\$ 5,180,807	\$ 65,636,618	92%
WMATA Agreement					
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%
Preliminary Engineering^{2,3}					
Preliminary Engineering Total	\$ 100,968,646	\$ 100,730,999	\$ -	\$ 100,730,999	100%
Airports Authority Services					
General Conditions ⁴	\$ 28,879,153	\$ 7,107,239	\$ 22,923,272	\$ 30,030,512	
Airports Authority Project Management and Wiehle Ave Garage	\$ 23,225,717	\$ 27,034,616	\$ 19,345,206	\$ 46,379,822	
Project Management Support	\$ 90,004,649	\$ 100,891,624	\$ 22,802,594	\$ 123,694,218	
Airports Authority Services Total	\$ 142,109,519	\$ 135,033,479	\$ 65,071,073	\$ 200,104,552	67%
Contingency⁵					
Contingency Total	\$ 297,762,579		\$ 10,797,219	\$ 10,797,219	
Finance Costs⁶					
Finance Costs Total	\$ 509,984,571	\$ 65,799,308	\$ 444,185,263	\$ 509,984,571	
Total Federal (FFGA Scope)	\$ 3,142,471,635	\$ 1,801,068,034	\$ 1,341,403,600	\$ 3,142,471,635	66%

1 Reflects Paid costs through February 29, 2012

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

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

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

5 Estimate at Completion for Contingency reflects the amount approved for utilization per PM-5 07 Rev 4

6 The Estimate at Completion for Finance Costs includes \$71.8 million in allocated contingency

7 Percent complete excludes contingency and finance charges

c. Project Funding Sources: February 2012

SOURCES OF CAPITAL FUNDING	GRANT ID	PERCENT AT COMPLETE	TOTAL	EXPENDED TO DATE ¹	PERCENT FUND SOURCE EXPENDED TO DATE	REMAINING
Sec 5309 New Starts Federal Funds						
Preliminary Engineering Grants			\$ 54,412,526	\$ 54,412,526	100%	\$ -
Final Design Grant	VA-03-0113-00		\$ 159,001,838	\$ 159,001,838	100%	\$ -
ARRA Construction Grant	VA-36-0001-00		\$ 77,260,000	\$ 77,260,000	100%	\$ -
FFGA Construction Grant	VA-03-0113-02		\$ 28,809,000	\$ 28,809,000	100%	\$ -
FFGA Construction Grant	VA-03-0113-03		\$ 85,000,000	\$ 85,000,000	100%	\$ -
FFGA Construction Grant ⁵	VA-03-0113-04		\$ 115,799,000	\$ 115,799,000	100%	\$ -
FFGA Balance	Planned		\$ 379,717,636	\$ -	0%	\$ 379,717,636
Subtotal - New Starts		28.64%	\$ 900,000,000	\$ 520,282,364	57.81%	\$ 379,717,636
Other Federal Funds						
Sec 5307 Surface Transportation Program						
Construction Grant	VA-95-X056-01		\$ 47,218,109	\$ 47,218,109	100%	\$ -
Construction Grant	VA-95-X056-02		\$ 21,281,890	\$ 21,281,890	100%	\$ -
Construction Grant	VA-95-X056-03		\$ 6,500,001	\$ 6,500,001	100%	\$ -
STP/Sec. 5307		2.39%	\$ 75,000,000	\$ 75,000,000	100%	\$ -
Local Funds						
VTA 2000			\$ 51,700,000	\$ 51,700,000	100%	\$ -
Commonwealth Transportation Bonds ^{2,5}			\$ 125,000,000	\$ 113,600,000	91%	\$ 11,400,000
Fairfax County Funds ³			\$ 523,750,000	\$ 272,355,062	52%	\$ 251,394,938
Dulles Toll Road Revenues ^{2,4,5}			\$ 1,467,021,634	\$ 768,130,609	52%	\$ 698,891,025
Subtotal - Local Funds		68.97%	\$ 2,167,471,634	\$ 1,205,785,671	55.63%	\$ 961,685,963
Total Project Budget		100%	\$ 3,142,471,634	\$ 1,801,068,035	57.31%	\$ 1,341,403,599
Interrelated Highway Activities						
DTR Revenues/Commonwealth Funds ³			\$ 123,208,229	\$ 79,383,932	64.43%	\$ 43,824,297
DTR Revenues/Commonwealth Funds³			\$ 123,208,229	\$ 79,383,932	64.43%	\$ 43,824,297
TOTAL			\$ 3,265,679,863	\$ 1,880,451,967	57.58%	\$ 1,385,227,896

¹ Reflects costs through February 29, 2012.

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

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

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

⁵ Expenditures 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 February 25, 2012, MWAA reports that it has utilized \$233,563,420 (98%) of the \$236,500,000 available contingency for the first seven contingency milestones leaving a contingency balance of \$2,936,580 (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 February 25, 2012, of the \$297,762,579 total project contingency, the project has a total of \$10,797,217 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 \$40.8 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 (\$40.8M) 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) are 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. Efforts are underway to arrive at an agreement as to what changes/budget overruns constitute non-FFGA expenditures and what should be FFGA expenditures. 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 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.

The PMOC *has been* reviewing changes to the project scope since Preliminary Engineering that could be considered *additional scope* (non-FFGA) or Concurrent Non-Project Activities (CNPAs), and *the FTA and PMOC* met with MWAA after the *April 10, 2012* Update Meeting to discuss their findings. MWAA has committed to review their assessment of CNPAs and submit their results to the PMOC/FTA in *April*.

MWAA's estimate of the **Earned Value** for the Project through *February 2012* is 71.6%.

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 *February 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
1	2A.03	Update Risk and Contingency Management Plan (RCMP) (October 2010)	The original Risk Management Plan was prepared in October 2008 and needs to be updated to reflect the current Project Status.	Y	Y	Y	During 2011, several iterations of the RCMP were submitted by MWAA and reviewed by the PMOC. A meeting was conducted on January 4, 2012 to address the remaining issues. MWAA updated the top ten ratings and the risk register and separated risks R23 and R31 as discussed. During the February 2, 2012 follow-up meeting, the PMOC agreed with the changes and requested that MWAA incorporate them into the RCMP. MWAA submitted the RCMP Rev.3 on March 5, 2012 <i>which was accepted by the FTA on April 13, 2012.</i>	C
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. <i>PM-5.07, Rev. 4 was submitted with RCMP Rev.3 and accepted by the FTA. Revision to PM-5.01 remains outstanding.</i>	R

KEY ITEM

Subtask 2A
Subtask 2B

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

LEGEND

PRIORITY (PR)

1- Most Critical
2- Critical
3- Least Critical

GRANTEE ACTION

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

PMO CONTRACTOR STATUS

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

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

APPENDICES

APPENDIX A – LIST OF ACRONYMS

AAC	Agreement After Certificate
AMEP	Architectural/Mechanical/Electrical/Plumbing
ARRA	American Reinvestment and Recovery Act
ASSHTO	American Association of State Highway and Transportation Officials
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: April 26, 2012 (reporting current through March 2012- Financials through February 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.

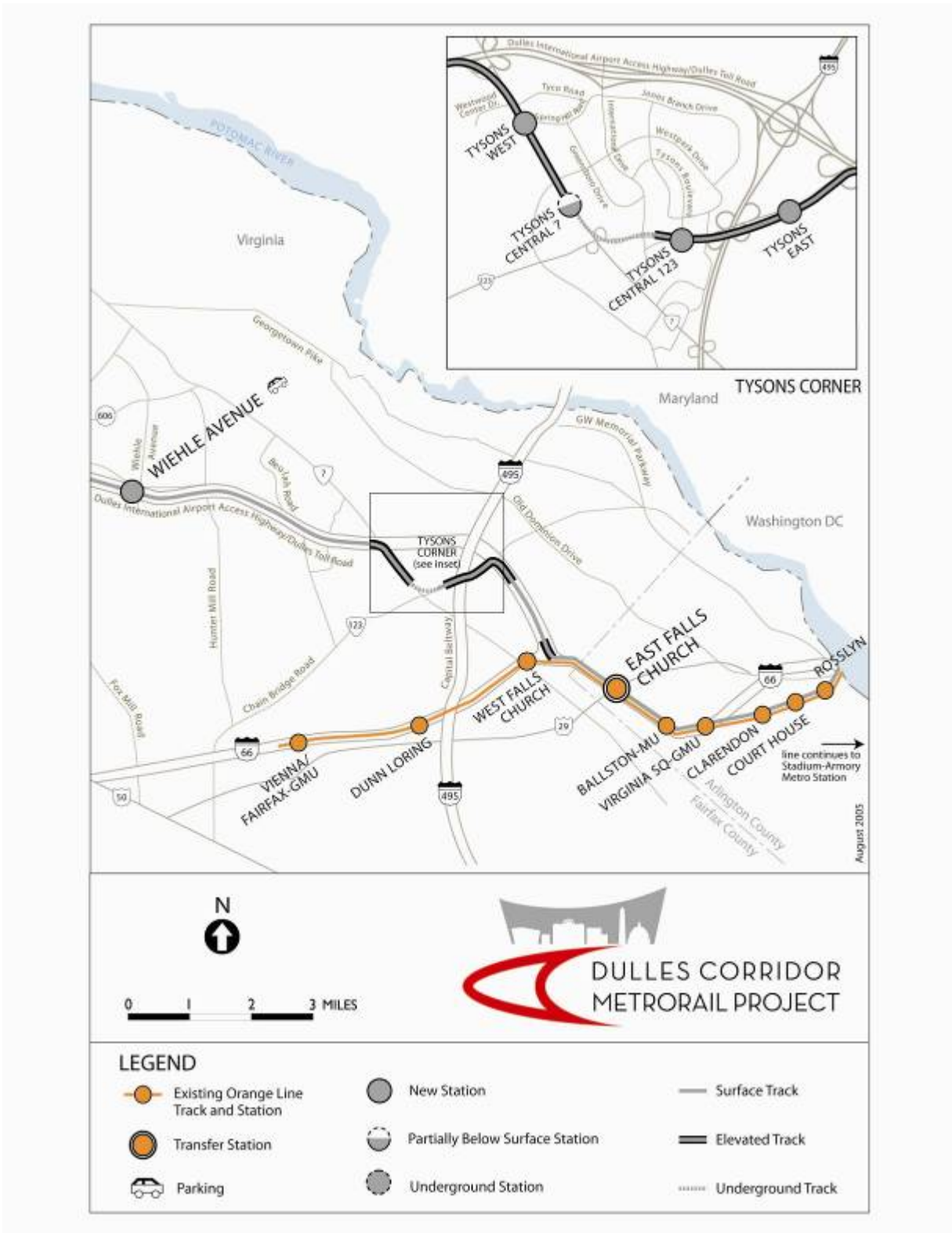
Schedule

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
01/23/14	Revenue Service Date (RSD) as of February 25, 2012		
70.0%	Percent Complete Construction as of March 31, 2012.		
53.0%	Percent Complete Time based on RSD of December 1, 2014 (based on FFGA)		
71.6%	MWAA's Estimate of Project Earned Value through February 2012		

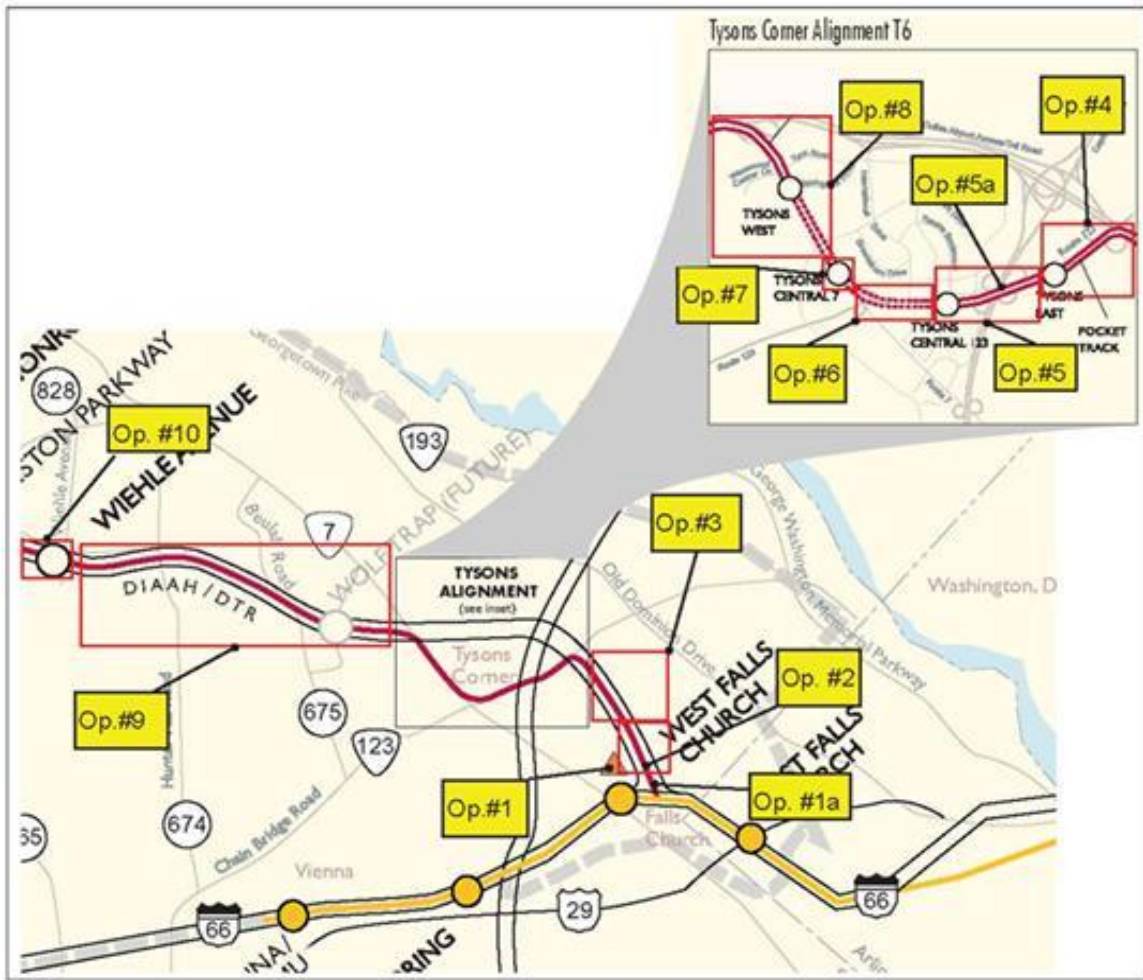
Cost

\$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>\$1.801 billion</i>	Expenditures through <i>February 2012</i> from total project budget of \$3.142 billion.
<i>66%</i>	Percent complete based on federal expenditures excluding contingency and finance charges through <i>February 2012</i> .
<i>\$10.79 million</i>	Total project contingency remaining (allocated and unallocated) through <i>February 2012</i> .

Project Map



Construction Operational Areas



APPENDIX C – MWAA SAFETY AND SECURITY CHECKLIST

Project Overview	Dulles Corridor Metrorail Project		
Project Mode (Rail, Bus, BRT, multimode)	Rail		
Project Phase (Preliminary Engineering, Design, Construction, or Start-up)	Design and Construction		
Project Delivery Method (Design/Build, Design/Build/Operate/Maintain, CMGG, etc)	Design/Build		
Project Plans	<i>Version</i>	<i>Review By FTA</i>	Status
Safety and Security Management Plan	3/2012	4/2012	<i>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.</i>
Safety and Security Certification Plan			<i>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.</i>
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.

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

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

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

Construction Safety	Y/N	Notes/Status
Does the grantee have a documented/implemented Contractor Safety Program with which it expects contractors to comply?	Y	
Does the grantee's contractor(s) have a documented company-wide safety and security program plan?	Y	DTP's Construction Safety, Health and Security Plan accepted on January 6, 2009.
Does the grantee's contractor(s) have a site-specific safety and security program plan?	Y	
Provide the grantee's OSHA statistics compared to the national average for the same type of work. If the comparison is not favorable, what actions are being taken by the grantee to improve its safety record?	Y	DTP has recorded <i>306 first aid cases and four lost time cases in 9.828 million</i> project man-hours which is below the national average.
Does the grantee conduct site audits of the contractor's performance versus required safety/security procedures?	Y	

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

APPENDIX D – PMOC TEAM PERFORMING THIS REVIEW

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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