#### COMPREHENSIVE MONTHLY REPORT

### September 2010

### Dulles Corridor Metrorail Project Extension to Wiehle Avenue

Metropolitan Washington Airports Authority Washington, DC

October 26, 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 15<sup>th</sup> Street Philadelphia, PA 19102

**PMOC Lead:** 

**Length of Time PMOC Assigned to Project:** 10.0 years **Length of Time PMOC Lead Assigned to Project:** 2.6 years

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#### **EXECUTIVE SUMMARY**

The Project Management Oversight Contractor (PMOC) met with Metropolitan Washington Airports Authority (MWAA) staff on *October 5*, 2010 to conduct a monthly progress meeting for work performed in *September 2010*. The full time on-site PMOC attended various project meetings throughout this reporting period and toured the construction site on a regular 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 additional 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. The Federal New Starts share is \$900 million for the Initial Operating Segment (extension to Wiehle Avenue). Through Federal fiscal year (FY) 2010, Congress has appropriated \$364 million in Section 5309 New Starts funds and \$77.3 million in American Reinvestment and Recovery Act (ARRA) Capital Investment funds. (The FTA awarded \$21,281,890 in STP funds for VA-95-X056 on September 2, 2010 and \$85,000,000 in New Starts Funds for VA-03-113 on September 23, 2010.)

The Project Map is located in Appendix B.

#### 2. Project Status Summary

The PMOC met with MWAA on *October 5*, 2010 to conduct a monthly progress review meeting.

- **Real estate acquisition** continues to keep ahead of construction requirements, often resorting to rights-of-entry (ROE) to gain access to required parcels. MWAA has identified *four properties* for condemnation court action.
- Rail car Procurement moved forward with the July 27, 2010 contract award by WMATA to Kawasaki. The manufacturer's proposed schedule showed the 64<sup>th</sup> car would be delivered by September 12, 2014 based on a July 12, 2010 notice to proceed (NTP). WMATA provided Notice-To-Proceed (NTP) on August 16, 2010. The kick-off meeting was held on August 23, 2010 with technical review meetings held during that week to review the technical

requirements of the 7K Series Car Procurement. A kick-off meeting between WMATA and the PMOC relative to the 7K Series Program has been scheduled for October 28, 2010.

• **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 *for all* station structures have been completed and submitted for *permitting* by VDOT and DGS. The access pavilions and final pedestrian bridge alignments at the stations that are *expected to reach final design completion in November 2010. These pavilions are also subject to coordination with adjacent developers who have requested design changes to accommodate their development plans. Anticipated overall design completion of the five stations through "Issued for Construction" (IFC) drawings, including pavilions, continues to be the fourth quarter of 2010 for civil, foundation and superstructure work; the second quarter of 2011 for architecture, interior fit out and entry pavilions; and the fourth quarter of 2011 for systems work. Overall project design is at 95% complete as of the end of September 2010. The delay in project design does not appear to have adversely impacted the schedule's critical path at this point in time since DTP is submitting permit packages in the order dictated by construction sequencing.* 

On September 13, 2010, Mr. Nowakowski of the Airports Authority and Mr. Kubicek of WMATA met to discuss the status of WMATA's reviews of ATC design documents. During this meeting, WMATA agreed to re-engage in the ATC design review process provided that MWAA would direct DTP to hire an independent third party consultant to review Alstom's safety analysis of the Generation 4 track circuit modules proposed for use on the Dulles Extension. MWAA agreed and provided a scope for this independent review and analysis which WMATA is currently reviewing. Impact on the project schedule is not yet known. However, MWAA reported that DTP/Alstom had previously been directed to continue with the ATC design effort despite WMATA's failure to review and comment on the design submittals. Therefore, there should be no impact on the schedule as long as this independent analysis does not lead to a redesign effort. To date, WMATA has not yet re-engaged in the ATC submittal review process.

• Construction progress is broken into two components: utility relocation (UR), which is 98% complete and design-build (DB) construction, which is approximately 21% complete. The east-bound Route 7 road shift to accommodate the *Tysons* Central 7 Station construction was accomplished on June 5, 2010. The west-bound Route 7 road shift to accommodate the Tysons Central 7 Station construction occurred on July 23, 2010. The east-bound Route 7 road shift to accommodate the Tysons West Station construction occurred on September 2, 2010. Several more Route 7 road shifts are expected during *October* and *November* to *permit station construction in the median*.

The O-1 Guideway is approximately 74% complete. The Tysons East Guideway/Station is approximately 56% complete and the NATM Tunnel is approximately 48% complete with the contractor completing 1,536 of 1,670 feet for the Outbound (OB) track and 1,293 of 1,686 feet for the Inbound (IB) track. OB Breakthrough occurred on October 21, 2010. Tysons East Station is approximately 16% complete and Tysons Central 123 Station is approximately 13% complete. The Wiehle Avenue Station is approximately 18% complete.

The pre-cast yard is now 100% constructed, and has cast 1,252 of 2,600 concrete box girder segments and station girders to date. Continue casting of segmental box girders for a total of 1,252 to date. The substandard 28-day concrete strength issue is still being investigated. However, core sample strength tests conducted thus far on the suspect segments show that the design strength has been attained. The curing procedure for test cylinders has been adjusted and subsequent test cylinder break tests have yielded positive results.

The casting of station guideway segments in the long line casting yard continues and the assembly of balanced cantilever box girder molds has been completed and eighteen cantilever box girders were cast in September bringing the total cast to date to thirty-six.

• The Schedule showed a 7 calendar day *loss* with the most current analyzed update schedule (data date of *August* 25, 2010) showing a total -98 calendar days (-91 in the July update) variance from the approved baseline schedule. This results in a projected ROD of March 12, 2014. DTP's *September* schedule update, which has not yet been analyzed, *also* reflects a total -98 calendar days delay. MWAA continues to note that it does not agree with the critical paths presented by DTP as being reflective of the actual critical path of the Project. MWAA and *DTP* continue to meet regularly to review and discuss DTP's recovery schedule, which was finalized and submitted to MWAA on July 26, 2010 with a Request for Change RFC-112 Rev. 0 entitled "Design-Build Acceleration for Delays through June 25, 2010." *DTP* submitted a recovery schedule on August 12, 2010 with an updated request for Change RFC-112 (Rev.1) entitled "Design-Build Acceleration for Delays through June 25, 2010." RFC-112 provided a recovery schedule that will mitigate ninety-one days of delay to the Project SSCD. The RFC included an acceleration cost of \$23.7 million. The RFC was rejected by MWAA in August.

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 West Falls Church Yard (WFCY) critical path, logic and delay issues in order to minimize the risk of irretrievable schedule creep leading to costly schedule compression or at least to minimize constructive acceleration costs. It is the PMOC's opinion that the majority of the UR work and design related permit issues will be resolved within the next several months and that schedule recovery will progress during the fourth quarter of 2010.

• **Budget** status as of *August 25, 2010* indicates that \$832,843,732 (26.5 %) has been expended of the \$3,142,471,634 budget total. *MWAA* reports \$82,009,653 of the available contingency for the first three contingency milestones has been utilized with a remaining balance of \$56,990,347 available through the completion of stations design and utility relocation work, which are expected to be completed by *January 2011* and *October 2010*, respectively.

The PMOC does not agree that the Phase 2 contingency milestone has been achieved. MWAA provided the PMOC with the information on cost contingency and MWAA agreed during the post-meeting discussions on October 5, 2010 to amend the white paper to include a discussion of MWAA's independent cost estimate for the Wiehle Avenue Station and impact to the MEP estimates. MWAA's estimate of the earned value for the Project through September 2010 is 38.81%.

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

All utility relocation efforts relating to the upcoming Route 7 road shifts in the Tysons West Station area *have been completed*. The remaining utility companies are expected to complete their work in *late October 2010*.

The Full Time Equivalent (FTE) total for *September* is 1,730, which is an increase from *August* of 1 and appears to provide suitable support to the scheduled activities. The pre-casting facility continues to produce pre-cast concrete girder segments and long line station segments in advance of their erection schedule.

Load tests on all eleven existing pier foundations were completed in June 2010. The peripheral tests, i.e. soils, metallurgical, stray current, corrosion and concrete tests were completed in the field and laboratory during the months of June and July. DTP submitted its comprehensive report to MWAA on July 20, 2010. CTI, the special inspections consultant, submitted an independent test report for the existing foundations to MWAA on August 16, 2010. MWAA reviewed both reports and provided comments back to both DTP and CTI for package refinement purposes. MWAA and CTI conducted an audit of DTP's design calculations and related test data on September 15, 2010 and found that the test data supports the design requirements. The audit findings requested DTP and CTI to provide a few minor clarifications to their respective reports.

During MWAA's final review of the reports, MWAA/QA decided to send several rebar samples from the existing piers to a Mactec Laboratory in California to conduct tensile and yield strength tests to confirm that the rebar was grade 60. ASTM A615 requires grade 60 rebar to have a tensile strength of 90,000 PSI and yield strength of 60,000 PSI. One sample passed and the other sample failed the tensile strength test at 83,900 PSI. However, further investigation showed that the sample failed at the heat affected zone of a tack weld and, therefore, was not considered to be a representative sample. MWAA/QA has directed DTP to obtain three more samples from the segments that were previously cut away from some of the existing foundations in order to conduct the H-pile PDA tests. Those newly acquired samples will be sent to the Mactec lab for repeat testing. Unfortunately, this effort may require several more weeks. It is the PMOC's opinion that MWAA/QA is attempting to dot every "i" and cross every "t" on this important report and that the extra effort is beneficial. MWAA will submit the completed comprehensive reports to the FTA and PMOC soon after receipt of the rebar test data.

MWAA submitted its draft PMP, Version No. 7, to the PMOC on September 3, 2010. The PMOC is currently reviewing the updated plan.

#### 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 updated project schedule, with a data date of *September* 25, 2010 (not yet analyzed), reflects a -98 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 *March 12*, 2014. *This is the same variance as reflected on the schedule update with a data date of August 25, 2010.* 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. MWAA and DTP met weekly during the month of *September* to review DTP's recovery schedule, which was finalized and submitted to MWAA on July 26, 2010 with a Request for Change RFC-112 Rev. 0 (Rev. 1 submitted August 12, 2010) entitled "Design-Build Acceleration for Delays through June 25, 2010." RFC-112 provides a recovery schedule intended to mitigate ninety-one (91) days of delay to the forecast Project Substantial Completion. The RFC included an acceleration cost of \$23.7M. The RFC was rejected by MWAA in August. *Discussions between MWAA and DTP continue at the executive level with regard to a recovery schedule*. The FFGA ROD is December 1, 2014.

MWAA continues to monitor expenditures to date and update the estimate at completion. Through *August 25, 2010, MWAA* has utilized \$82,009,653 of the Phase 1 and Phase 2 allotted contingency 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 since the justification addresses only schedule and not cost. MWAA revised the white paper to include a discussion of cost. *During the post* meeting discussions on October 5, 2010, the PMOC requested that MWAA include a discussion of their independent cost estimate for the Wiehle Avenue Station and the implications on the MEP allowance costs.

The Quality Assurance (QA)/Safety group maintains an active schedule of audits and surveillances and accident data. Through *September 2010*, of the cumulative total of *3*,889,777 hours worked, there have been no lost time events. Revision 3 of the SCIL was issued by DTP on August 3, 2010. MWAA transmitted comments, including those from WMATA, to DTP on August 26, 2010 and the SCIL, Revision 3 was "Accepted as Noted." Only minor comments on the SCIL remain outstanding.

DTP submitted revisions to the System Safety/Security Management Plan 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 on August 16, 2010. The Plan and Procedures are under review by the Airports Authority and WMATA. MWAA received WMATA's comments on September 8, 2010. MWAA is reviewing the comments.

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.

MWAA submitted the required Record of Decision Mitigation Report to the FTA on July 29, 2010 for the second quarter of CY 2010.

FTA and the PMOC continue to review the May 19, 2010 submittal on proposed changes to Record of Decision mitigation measures at the Wiehle Avenue Station, primarily due to the joint development project proposed for that location. FTA *submitted additional questions in September and* is awaiting a response *from MWAA* and Fairfax County.

#### 2. Project Scope

#### a. Design Status

Work continues on the completion of designs, with stations' designs and ATC design 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, preparation of the "Issued for Permit" (IFP) and subsequent "Issued for Construction" (IFC) drawings is proving to be a drawn out process. Anticipated issuance dates for IFC design packages continue to change from month to month. As of October 1, 2010, the completion dates for all station design packages have been further delayed as follows: late October 2011 for Tysons East, Tysons Central 123, Tysons Central 7 and Tysons West Stations and late November 2010 for the Wiehle Avenue Station. The associated station pavilion and pedestrian bridge designs are now anticipated in late January 2011. According to DTP, issuance of completed IFC design packages has not impacted the project's critical path, due in part to DGS continuing 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.

#### **b.** Bidding and Construction Status

Through *August 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 13 of 31 sub-contract packages awarded thus far for federally-funded allowance items.

Utility relocation is 98% complete and DB construction is approximately 21% complete. All utility relocation efforts relating to the remaining Route 7 road shifts in the Tysons West Station area have been completed. The remaining utility companies are expected to complete their last bit of work in late October 2010. Facchina is now preparing the new roadway for the remaining Route 7 road shifts scheduled to occur in October and November 2010.

The following are the major accomplishments of the DB contractor during September 2010:

• Operations Areas OP-1, OP-2 and OP-3 (I-66/DCR/Laydown Area 1) – Completed abutment A- OB walls. Poured the sixteenth and final pile cap at pier 5-IB. Poured pier cap 6-IB bringing the total to thirty-eight completed to date. AASHTO box girders were set in place at spans 11-OB, 14-IB, 15-IB and 16-IB bringing the total to eighteen completed to date. Continued pouring Pimmit Run Bridge deck. Continued storm drain installation west of Magarity Road and continued pouring retaining walls east of Pimmit Run.

**Operations Area OP-4 (Tysons East Guideway/Station) -** Completed caissons at piers 36-OB and 36-IB bringing the total completed to seventy-eight. Completed pile caps at piers 14-IB/OB, 15-IB, 32-IB, 40-OB, 41-OB, and 48-IB/OB bringing the total to fifty-nine completed to date. Poured pier columns at piers 14-IB/OB, 15-IB, 32-IB, 33-IB, 35-IB and 48-IB/OB bringing the total to fifty-two completed to date. Poured pier caps at piers 13-IB/OB, 32-IB/OB and 45-IB/OB bringing the total to twenty-nine completed to

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date. Completed mezzanine beams at pier 32. Completed segmental box girder guideway erection of spans 6-IB, 7-IB, 7-OB, 8-IB and 8-OB. Continued with construction of straddle bent at pier 10. Completed assembly and load testing of Segmental Erection Truss #2 at piers 56-IB/OB and 57-IB/OB. The construction of Segmental Span 57 was started.

- Operations Area 5A/OP-5 (I-495 Crossing/Tysons Central 123 Station) Completed caissons at pier 50 bringing the total to 21 completed to date. Completed pile caps at piers 51-OB and 72-OB bringing the total to nineteen completed to date. Completed columns at piers 72-OB and 72-IB bringing the total to twenty-two completed to date. Completed the mud mat slab and continued forming and rebar placement for the structural foundation slab at the 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 1,536 feet of 1,670 feet to date and the excavation of the IB tunnel completing 1,293 feet of 1,686 feet to date. OB breakthrough occurred on October 21, 2010.
- Operations Area OP-6 (West Cut and Cover Tunnel) Closed Ramp B and detoured Ramp A from Route 7 east-bound and Route 123 south-bound. Commenced stage 2A soldier pile installation.
- Operations Area OP-7 (Tysons Central 7 Station) Installation of the support of excavation and excavation continues. Started driving H-piles for the station foundation.
- Operations Area OP-8 (Tysons West Station/Guideway) Completed the east-bound road shift between Westwood Center Drive and the Best Buy Store. Construction of the retaining wall and storm drain installation continues between Westwood Center Drive and the Toll Road. Mobilized caisson rigs in the median of Route 7 between Tyco Road and Spring Hill Road. Storm drain, grading, curb and gutter, and paving work on west-bound Route 7 continues between Spring Hill Road and Tyco Road. Grading work continues on west-bound Route 7 between Westpark Drive and SAIC. Completed Tysons West Guideway caissons at piers 2-IB, 2-OB, 3-IB and 50-IB bringing the total to fourteen completed to date. Started pile cap support of excavation in the median of the DIAAH.
- Operations Area OP-9 (DIAAH) Continued forming and rebar placement at the W&OD Bridge deck. Completed abutment A on the east side of Hunter Mill Road Bridge. Installation of piles and cofferdam at the intermediate piers at Difficult Run Bridge continues. Continued with retaining wall on the OB and IB sides between Hunter Mill Road and Difficult Run. Storm drain installation between Hunter Mill Road and east of Difficult Run continues in the median. Placement of track subgrade continues between Wiehle Avenue and Hunter Mill Road.
- Operations Area OP-10 (Wiehle Avenue Station/Laydown Area 13) Forming and pouring platform walls was completed. Forming and placement of rebar for the platform

deck slab continues. Continue pile cap construction on the IB track side of the station. Continue pouring slab on grade under the station platform continues.

• Laydown Area #10 (Pre-cast Yard) -. Continued casting of segmental box girders for a total of 1,252 to date. During August, CTI (the special inspections consultant) recorded significant 28-day concrete strength deficiencies in a number of segments. MWAA continues to investigate the causes of the concrete strength problems. However, core samples taken from the affected segments and tested in the lab have been yielding the required design strengths. This suggests that the curing procedures of the concrete cylinder samples may be weakening the sample concrete. Adjustments to the curing procedures on late pours by applying heat after the initial concrete set seems to be having a positive influence on the test cylinders. The turning point occurred on or about August 21 with the curing adjustments. Expert independent reviews and reports are still pending.

### c. Third Party Coordination & Agreement Status

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

#### d. Real Estate

Real Estate Acquisition continues to keep ahead of construction requirements, often resorting to ROE to gain access to required parcels. Through *September* 2010, 65 of the 99 parcels required for the Project have been acquired. The table below summarizes acquisition activities for the Project through *September* 2010 *which remains unchanged from August* 2010.

# PARCELS ACQUIRED<sup>1</sup>

(Number of parcel packages)

			Period		7	Γο Date	
LOCATIONS	TOTAL	Planned <sup>2</sup>	Actual	Var	Planned <sup>2</sup>	Actual	Var
Route 66 / Dulles Connector	1	0	0	0	1	1	0
Route 123	23	0	0	0	20	19	(1)
Route 7	51	0	0	0	42	38	(4)
DIAAH	24	0	0	0	11	7	(4)
TOTAL	99	0	0	0	74	65	(9)

Notes: 1. Parcels secured through recordation of deed/easement and filing of Certificates of Take. These values include rights obtained for another 28 parcels for which Certificates of Take have been filed.

2. Planned values are based on the March 31, 2010 Property Acquisition Status Update.

#### **Condemnation Status**

A total of twenty-eight parcel packages have been obtained with the filing of twenty-four Certificates of Take. In September, the case scheduled for trial in October moved closer to a settlement and one Agreement after Certification was finalized. Trial for one Certificate of Take

was scheduled for March 2011, one appeal was filed and one Agreement After Certificate moved closer to Finalization pending full execution by VDOT. A total of *twenty* Certificates of Take remain in process. Trials have been scheduled for Parcel 41 (Orvis) in October 2010, Parcels 11 and 14 (Lerner) in November, Parcel 30 (Best Buy) in March 2011 and Parcel 21 (Trulie/Marshalls Shopping Center) in April 2011.

### e. 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 *September* 2010 includes the following:

- Along Route 7 (123 Overpass to Marshall's) All work completed.
- Along Route 7 (Marshall's to Gosnell/Westpark) MCI continues cutover of customers at SAIC. Washington Gas completed lowering of existing pipe at Westpark and Level 3 completed lowering of existing ductbank at Westpark.
- Along Route 7 (Gosnell/Westpark to Spring Hill Road) Washington Gas abandoned and removed existing service line near the Exxon Station and AboveNet replaced its hand hole and manhole near the Exxon Station. There are no remaining conflicts in this area.
- Along Route 7 (Spring Hill Road to Tyco/Westwood) MCI continues splicing and cutovers on the north side of Route 7. Dominion Virginia Power, Verizon and MCI completed relocation of existing cables at Tyco Road on the north side of Route 7. AboveNet continues splicing and cutover work on the north side of Route 7.
- Along Route 7 (Tyco/Westwood to Route 267/Toll Road) AboveNet continues with cable installations and splicing on the north side of Route 7 at Koons Toyota. MCI continues with customer notifications and splicing work. Washington Gas continues relocation of its gas flow meter.
- Along Route 123 (Route 7 to the Route 267 Connector Road) DTP/Lane continues with bypass 34.5kV manhole and ductbank installation near the Tysons Central 123 Station. AboveNet continues digging test pits at Route 123 and Scotts Crossing. DVP completed splicing work at Scotts Crossing/Colshire Drive.
- The DIAAH/Dulles Toll Road/Dulles Connector Road (Route 7 to Route 267 DIAAH West) DTP/Lane continues the installation of the traction power ductbanks on the Dulles Connector Road median between Idylwood and Pimmit Run.

#### f. Vehicle Procurement

WMATA is acquiring the additional 64 rail cars required for the project. WMATA is purchasing 300 additional cars under the same procurement. The WMATA Board approved the award of a contract and a sharing of development costs with the Airports Authority at its

May 27, 2010 meeting. The Airports Authority Board agreed at its June 2, 2010 meeting to share the development costs associated with the railcar procurement equally with WMATA.

Rail car procurement moved forward with the July 27, 2010 contract award by WMATA to Kawasaki. The manufacturer's proposed schedule showed the 64<sup>th</sup> car would be delivered by September 12, 2014 based on a July 12, 2010 notice to proceed (NTP). WMATA issued Notice-To-Proceed (NTP) on August 16, 2010. A kick-off meeting between WMATA and the PMOC has been scheduled for October 28, 2010. The Project schedule requires the last (64<sup>th</sup>) car to be delivered by September 20, 2013 to support the Project's ROD. A revised delivery schedule is not yet available. WMATA has stated that they will be able to support the Project's ROD needs with existing fleet rail cars if Kawasaki is unable to improve the delivery schedule.

#### g. Safety and Quality Status

The Airports Authority participated in *four* safety walk downs with DTP during the month of *September*. One was related to utility relocation and *three* were related to Design-Build work. An audit of the DTP Construction Safety Program was conducted on August 4-5, 2010. Although the audit results were generally positive, two minor issues requiring response were identified along with four recommendations for safety program improvement. *MWAA is currently reviewing DTP's second response to this audit which is expected to be closed in early October*. As of *September 30*, 2010, DTP had logged a total of *3.88* million project man-hours with *127* first aid cases and *one* lost time case. There have been a total of *174* incident investigation reports, 73 utility hits and 15 vehicular accidents.

Revision 3 of the SCIL was issued by DTP on August 3, 2010. MWAA transmitted comments, including comments from WMATA, to DTP on August 26, 2010 and the SCIL, Revision 3 was "Accepted as Noted." Only minor comments on the SCIL remain outstanding. DTP is addressing the remaining comments and Revision 4 to the SCIL will be submitted to the Airports Authority in October 2010.

DTP and the Airports Authority 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 items related to all issued for construction designs. During the initial DTP/Airports Authority meetings, it was agreed that the next Design Conformance Checklist submittal would be scheduled for September 2, 2010 and be updated every ninety days thereafter. A Design Conformance Checklist was submitted for MWAA's review on September 2, 2010 with sixty-five items signed off. MWAA's review is expected to be complete in early October. The next Construction/Procurement/Installation Conformance Checklist was received on October 4, 2010 with six items signed off and is currently being reviewed. Regular weekly visits to work sites by safety representatives from DTP, the Airports Authority and WMATA have begun.

WMATA is implementing a procedure that involves potential selection of additional items from a checklist population for Airports Authority review in addition to those chosen randomly by the Project team for review. These items will be safety critical items selected on a "judgment" basis by WMATA Safety. That process will likely commence with DTP's

September checklist submission. The Tri-State Oversight (TOC) and the FTA's on-site PMO representative continue to meet monthly with the Safety/Security Certification Working Group and continue ongoing involvement in the certification process.

DTP submitted revisions to the System Safety/Security Certification Management Plan 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, on August 16, 2010. Comments have been received from WMATA and actions are underway to address and resolve these comments by both the Airports Authority and DTP. It is anticipated that the Airports Authority and DTP will meet with WMATA during the week of October 11, 2010 to address these comments.

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 walkdowns with DTP.

During September 2010 MWAA performed the following QA audits/surveillances:

- CTI QA Program: An audit was conducted on the subject program on September 8-9, 2010. There were three issues and one recommendation. CTI has responded and the audit is closed.
- DTP Environmental: An audit was conducted on the subject program on September 9, 2010. There are three issues and six recommendations with a response due by October 8, 2010.
- KSA (Switch Tie Supplier): DTP led this audit on September 14, 2010. There were seven observations made and a report is being prepared.
- Progress Rail Services (Special Trackwork Supplier): DTP led this audit on September 15, 2010. There were three observations and a report is being prepared.
- Design of Existing Piers: An audit was conducted on September 15, 2010. A report was issued on October 4, 2010. No issues were found and the audit is closed.
- DTP Construction and QC: An audit was conducted on subject programs on September 22-23, 2010. There was one issue and seven recommendations with a response due on October 11, 2010.
- Brayman Construction: DTP led this audit on September 29-30, 2010. There were two observations and a report is being prepared.

The MWAA QA Audit and Surveillance Schedule through December 2010

Tentative Date	Audit (A) Surveillance (S)	Organization/Activity	Joint Audit/ Surv.	Lead
10/06-7/10	A	DTP QA, Document Control, Training	N	MWAA
10/13-14/10	A	System Safety and Security	N	MWAA
10/20-21/10	A	DTP Engineering	Y	MWAA
11/03/10	S	DuBrook Concrete	Y	MWAA
11/17/10	S	DTP Sub/Supplier Submittal Process: DTP/Sub Nonconformance Control Systems	N	MWAA
12/08/10	S	DTP Subcontractor Safety Program	N	MWAA

#### 3. 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 review of MWAA's compliance with the PMP and issued a Spot Report on December 8, 2009. MWAA updated its PMP based on the PMOC's observations and the recent MWAA reorganization to an integrated MWAA and PMSS organization. MWAA submitted its draft PMP update of Version 7.0 on September 3, 2010. *This plan is under review by the PMOC*. 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 reported that three Project Management Procedures were updated in the period from March through May 2010.
- 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) and has requested 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 with a meeting to discuss the update to be scheduled after MWAA completes their risk plan update. MWAA is in the process of revising the RMP.

- 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. WMATA submitted the revised draft RFMP on September 3, 2010 and it is under review by the PMOC.
- 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.
- FTA requested an update to the Appendices in the Permitting Plan on June 17, 2010. MWAA has not provided that information to date.

#### 4. Project Schedule

The most recent MWAA analyzed project schedule update has a data date of *August* 25, 2010. The primary critical path identified by DTP reflects a -98 calendar day variance in the achievement of the SSCD from that reflected in the approved Baseline Schedule. This variance reflects a 7 calendar day *loss* in the critical path since the *July* schedule update and yields a *March* 12, 2014 ROD. The FFGA ROD is December 1, 2014.

During the month of *September* 2010, Construction continued with the Tysons West guideway; work continues at the O-1 Guideway and Tysons East corridor aerial substructure; at Magarity, Pimmit, Hunter Mill, Difficult Run and W&OD bridges; Tysons East, Tysons Central 123, Tysons Central 7 and Wiehle Avenue Stations; detention ponds at the DIAAH and West Cut-Cover Tunnel; MOT, retaining walls and storm drainage along the DCR and DIAAH; NATM tunnel work continues to progress on schedule for the inbound and outbound tunnels; the WFCY Lead Tunnel continues; Early Roadway work continues at various locations; segmental erection by launch truss #1 continues and launch truss #2 assembly *was completed and loaded tested on September* 22, 2010 and has begun erection on span 22.

DTP's September schedule narrative notes that the primary driver behind the adverse impacts to the critical path schedule continues to be the forecast completion of UR Program work required to support interface work with its subcontractor, Facchina Construction Company (FCC), working along the Route 7 corridor in the vicinity of Tysons West Station. Although UR delays continued this month with the remaining utility agencies, DTP reports that it was again able to mitigate some of the UR delays confronted this month, i.e. DTP reported that its ability to progress the planned Route 7 west-bound road shifts were again hampered during the month by

a 16 inch gas main interference at the Exxon Station and additional Dominion Virginia Power splicing at Tyco Boulevard, which were not completed until September 29, 2010. DTP reported that despite the interference, it was still able to develop a work-around to allow its first west-bound Route 7 road shift between the Best Buy Store and the Sheraton Hotel to be successfully accomplished on September 2. However, several follow on road shifts have been bumped to October and November 2010.

The WFC Yard upgrade work schedule continues to reflect a completion of the full facility in January 2014. DTP stated in its May schedule narrative that this 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." 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. DTP's June Schedule narrative states that "DTP resubmitted RFC-065 for the West Falls Church Yard schedule showing a completion in January 2014. DTP anticipates that a new and separate contractual completion date for the WFCY will be established independent of the Project SSCD." It is the PMOC's opinion that the 'independent contractual completion date' must still support the Project Operational Readiness Date". During the September monthly meeting, MWAA reported that the schedule and costs presented by DTP are still being reviewed and that they are confident that the schedule can be adjusted to support the Project's Operational Readiness Date.

A "West Falls Church Yard Tie-in Execution Plan Update Meeting" was conducted on July 29, 2010. This was an informative and productive meeting, with MWAA, DTP and WMATA represented. It was noted that the updated presentation had incorporated review comments from all stakeholders. The presentation was intended to gain WMATA's feedback on the current execution plan to build the new storage tracks, the new S&I Shop, TPSS, sound cover box and the yard lead tunnel and tracks. The presentation covered the "Key Planning Parameters", "DTP's Current Approach", Existing Site Conditions" and "Next Steps: WMATA Input and Feedback." It was further noted during this meeting that efforts were underway to schedule the completion of this yard expansion in time to support the Project's Operational Readiness Date. A 2<sup>nd</sup> meeting was conducted as a follow-up on August 31, 2010 at which DTP again presented its general plan. It was attended by DTP, MWAA and WMATA, including the WFCY Superintendent for Operations. DTP provided a good overview of its plan and a tentative track outage schedule that will be officially submitted to MWAA in *October*. The plan begins with a three-day track outage in January 2011 to install four new loop track 3<sup>rd</sup> rail power disconnect switches in order to manage partial power outages needed to minimize the impacts to the daily operations of the yard during the sound box construction. DTP hopes to install work area fencing within the loop track and commence clearing and grubbing in December 2010 with only nightly track outages.

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 work 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 schedule that continues to be of concern relative to meeting the scheduled Project Operational Readiness Date (ORD). In addition, the critical path, weather delays and schedule logic issues are yet to be resolved. Also, MWAA and DTP continue to voice concern with WMATA's, VDOT's and DGS's abilities to provide timely design review comments and to issue timely permits. Improvement with VDOT's turnaround time continues to be observed. However, WMATA continues to lag with its submittal reviews and DGS continues to lag with its reviews and building permit issuance. MWAA has repeatedly requested WMATA to improve its support to the Project and DTP has repeatedly requested MWAA and DGS to improve its support of the Project. Also, MWAA, WMATA and DGS continue to voice concern about the quality of the DTP design packages without substantial improvement by DTP. It is the PMOC's opinion that more could and should be done by MWAA, DTP, WMATA and DGS to overcome these potentially costly delays.

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

- Changes to segmental girder design from concrete to *AASHTO* steel for the I-495 crossing and schedule conflict with HOT Lanes Project.
- Utility companies meeting the project schedule.
- Utility redesign/relocation due to interferences.
- WFCY design, construction and commissioning.
- Weather Delays.
- Inability of DTP to achieve design finalizations.
- A potential systemwide upgrade program by WMATA could have numerous technical scope changes impacting Traction Power, Automatic Train Control and Communications.

#### 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 WFC yard, critical path, logic and delay issues in order to minimize the risk of irretrievable schedule creep leading to costly schedule compression or constructive acceleration. It is the PMOC's opinion that the majority of the UR work and design related permit issues will be resolved within the next *few* months and that schedule recovery will begin during the fourth quarter of 2010.

The schedule update with a data date of *August* 25, 2010 was again not agreed to by MWAA. MWAA has not agreed to the critical path in any schedule update submitted by DTP for more than a year.

The primary critical path identified by DTP reflects a -98 calendar day variance in the achievement of the SSCD from that reflected in the approved Baseline Schedule. The critical path as presented by DTP in *August* continues to show the origin being incomplete utility relocations which impacts the Route 7 traffic shift that creates the work zones necessary to

construct the Tysons West Aerial Guideway and Tysons West Station. The Project team *again* disagreed that this was the critical path, asserting that the path was unrealistic since Truss 2 would continue setting other spans after setting Span 22 and not wait for cure time on Pier 31 as currently shown in the schedule. This one 'correction' to the path resulted in a *fifteen* work-day improvement to the critical path. *The Airports Authority states that "for this reason and others (inaccurate progress reporting, inappropriate ties and the need for supportable durations on a number of "downstream" activities) the critical path(s) presented by DTP are unacceptable to the Airports Authority." In addition*, the Project team does not agree with the schedule for the WFC yard contained in DTP's August Update. As submitted, it reflects a completion date of January 2014 and does not fully reflect the scope reflected in the 60% Design Submittal for the Service and Inspection (S&I) Annex Building.

MWAA started a concerted effort during July to resolve the continuing disagreements with DTP over schedule updates. Although meetings have been held with the contractor, resolution of differences has not been reached. However, MWAA reported during the *September* update meeting that progress is being made.

The following table compares the milestone dates relative to the approved baseline schedule. The PMOC concurs with MWAA's assessment of the updated schedule and expects that discussions will continue with DTP to reach resolution on the schedule. However, the PMOC is not optimistic that DTP's goal is to reach resolution with regard to the schedule disagreement.

	June 2008	July 2010	August 2010
MILESTONE	Baseline	Schedule	Schedule
	Schedule	(NOT ACCEPTED)	(NOT ACCEPTED)
Receipt of FFGA	$03/03/09^1$	03/10/09 <sup>A</sup>	03/10/09 <sup>A</sup>
Station Design Complete	10/21/09 <sup>1</sup>	12/01/10	12/29/10
Utility Relocation Complete	$03/05/10^1$	12/01/10	01/13/11
Aerial and Station Foundations Complete	03/04/11	07/05/11	07/12/11
NATM Tunnels Mined	01/29/11	01/04/11	12/29/10
K-Line Tie-In	12/23/11	05/12/12	03/29/12
Guideway Complete	02/12/12	10/09/12	09/26/12
Train Control Complete	10/26/12	01/22/13	01/08/13
Substantial Completion	07/31/13	10/30/13	11/06/13
Revenue Operations - Target	11/27/13	03/14/14	03/20/14
FFGA Revenue Operations	12/01/14	12/01/14	12/01/14

<sup>&</sup>lt;sup>A</sup> Actual Date

### 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 stations design with issuance of IFC Drawings.
- Completion of utility relocation.
- Property acquisitions for the Tysons West Aerial Guideway (OP-8).

<sup>&</sup>lt;sup>1</sup> Date was not met.

#### 5. Project Cost

The SCC Budget and Expenditures summary for the period ending *August* 25, 2010 is as follows. Overall, approximately 26.5% of the budget has been expended through *August* 25, 2010.

FTA SCC CODE	DESCRIPTION	BASELINE BUDGET	CURRENT BUDGET <sup>1</sup>	EXPENDED TO DATE	ESTIMATE AT COMPLETION
10	Guideway and Track Elements	\$ 666,500,284	\$ 634,450,682	\$ 143,850,490	\$ 634,450,682
20	Stations	\$ 317,023,979	\$ 315,699,620	\$ 26,502,497	\$ 315,699,620
30	West Falls Church Yard	\$ 51,789,539	\$ 51,484,608	\$ 3,020,347	\$ 51,846,378
40	Site Work & Utility Relocation	\$ 232,936,987	\$ 236,197,913	\$ 110,604,,207	\$ 239,076,774
50	Systems	\$ 278,157,645	\$ 285,644,779	\$ 28,475,341	\$ 284,412,001
60	Right of Way Acquisition	\$ 45,953,303	\$ 45,953,303	\$ 49,550,844	\$ 70,207,408
70	Vehicles	\$ 211,629,775	\$ 211,629,775	\$ 9,557,938	\$ 210,926,012
80	Professional Service	\$ 698,471,472	\$ 715,681,512	\$ 448,940,750	\$ 726,788,541
90	Contingency Mgmt. Reserve	\$ 130,000,075	\$ 135,744,871	\$ -	\$ 99,079,647
100	Finance Charge	\$ 509,984,571	\$ 509,984,571	\$ 12,341,319	\$ 509,984,571
	TOTAL (Federal portion)	\$ 3,142,471,634	\$ 3,142,471,634	\$ 832,843,732	\$ 3,142,471,634

Current budget equals FFGA amount plus approved Change Orders CO-001-053 except CO-0049, Directive Letters 001-011, and UR-CO-001-024.

#### a. Explanation of Variances

The major variances in the project budget are associated in four categories as noted below:

- 1. SCC10 Guideway and Track Elements has been reduced approximately \$31 million due to the decision by the DB contractor to self perform the NATM tunnel work. Of this major reduction, \$18 million was transferred to SCC 80.
- 2. SCC40 Site work and Utility Relocation has been increased by approximately \$6 million as a result of utility relocation change orders.
- 3. SCC60 Right of Way Acquisition experienced 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.
- 4. SCC80 Professional Services increased approximately \$28 million due to \$18 million for design, project management and construction management of the tunnel. \$1.3 million is associated with Final Design of the tunnel and \$17.5 million is associated with Project Management and Construction Management.

The balance is primarily due to utility relocation design overruns and the design for TPSS #9 and #11 in the amount of \$1.2 million which was transferred to the non-federal portion of the project. SCC80 was increased by approximately \$4.4 million for 33 change orders and \$2.4 million for other budget transfers, as well as \$3.5 million increase for VDOT.

## b. Monthly Cost Report, August 2010

DESCRIPTION		F	FGA AMOUNT	EX	PENDITURE TO		ESTIMATE TO		ESTIMATE AT
DESCRIPTION			(Original)		DATE <sup>1</sup>		COMPLETE		COMPLETION
	FEDERAL (FFGA	SCC	PE)						
Design-Build									
Firm Fixed Price		\$	1,112,052,172	\$	423,252,160	_	941,379,759	\$	1,364,631,919
Firm Fixed Price Insurance and Bonds		\$	65,109,408	\$	62,863,142	\$	2,650,901	\$	65,514,043
	Firm Fixed Price Subtotal	<u> </u>	1,177,161,580	\$	486,115,302	\$	944,030,660	\$	1,430,145,962
Subcontract Allowance		\$	430,199,817	\$	-	\$	230,183,926	\$	230,183,926
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Design-Build Contract Prices		1,607,361,397	\$	486,115,302	\$	1,174,214,586	\$	1,660,329,888
Indexed Commodity Escalation	Desire B. Md Control Total	\$	77,469,926	4	406 445 202	\$	57,907,009	\$	57,907,009
I Militur Delegation	Design-Build Contract Total	\$	1,684,831,324	\$	486,115,302	\$	1,232,121,595	\$	1,718,236,897
Utility Relocation Utility Work		\$	94 212 907	\$	73,485,258	\$	14.548.870	\$	88,034,128
Terf Tax		ş	84,312,807	\$	73,403,230	\$	14,548,870	\$	00,034,120
Project Management and Final Design		Ś	8,423,426	\$	14,884,682	\$	210,306	\$	15,094,988
Project Management and Pinar Design	Utility Relocation Total	7	92,736,233	\$	88,369,940	\$	14,759,176	\$	103,129,117
Right of Way	Othicy Relocation Total	٧	32,730,233	7	80,303,340	7	14,733,170	7	103,123,117
rugite of way	Right Of Way Total	خ	42,443,132	\$	49,550,844	\$	20,656,563	\$	70,207,407
WMATA Agreement	Right Of Way Total	۲	42,443,132	٦	43,330,644	۲	20,030,303	٦	70,207,407
Vehicles		\$	195,138,329	\$	9,557,938	\$	184,876,628	\$	194,434,567
Construction and Procurement		\$	31,484,799	\$	1,180,044	_	29,386,980	\$	30,567,024
WMATA Force Account Startup		\$	13,777,100	\$	1,187,569	_	12,217,452	\$	13,405,021
Project Management and Final Design		\$	31,235,400	\$	9,926,104	\$	23,302,914	\$	33,229,017
1 Toject Management and Tinai Design	WMATA Agreement Total	_	271,635,628	\$	21,851,655	\$	249,783,973	\$	271,635,628
Preliminary Engineering <sup>2,3</sup>	The state of the s	Ť	271,033,020	Ť	21,031,033	7	213,703,373	Ÿ	271,033,020
Fremilinary Engineering	Destinations Fundamental Total	\$	100.000.040	۲.	100 720 000	\$		\$	100 730 000
Aire and Arabbanita Comitan	Preliminary Engineering Total	\$	100,968,646	\$	100,730,999	\$	-	\$	100,730,999
Airports Authority Services		L		1				4	
General Conditions <sup>4</sup>		\$	28,879,153	\$	4,634,858	\$	22,272,701	\$	26,907,559
Airports Authority Project Management and Wiehle		۱		L	40.054.500	٦	0.054.40		
Ave Garage		\$	23,225,717	\$	13,971,580	_	9,364,137	\$	23,335,717
Project Management Support	Airports Authority Services Total	\$	90,004,649	\$	55,277,235 73,883,673	\$	38,300,349 69,937,187	\$	93,577,583 143,820,859
Contingency <sup>5</sup>	Airports Authority Services Total	Ş	142,109,519	٦	/3,003,0/3	Ş	09,957,167	Ş	145,620,659
Contingency	Contingency Total	ć	297,762,579	\$		Ś	224,726,154	\$	224,726,154
Finance Costs	Contingency rotal	Ą	231,102,313	Ą		٧	224,720,134	٦	224,720,134
Finance costs	Finance Costs Total	¢	509,984,571	\$	12,341,319	\$	497,643,252	\$	509,984,571
Total Fadaval (FECA Coope)	Tillance costs rotal	Ś	3,142,471,634					\$	
Total Federal (FFGA Scope)	INTERRELATED LUCUMAN			Ş	832,843,732	Ş	2,309,627,902	,	3,142,471,634
Design Build	INTERRELATED HIGHWAY	IIVI	PROVEIVIEN 13						
Design-Build		ا ا	F 020 002	۲	3.500.661	۲.	22,000,000	۸.	27 507 240
Firm Fixed Price - Engineering Firm Fixed Price Insurance and Bonds		\$	5,929,082 2,889,450	\$	3,598,661 2,832,430	\$ \$	23,998,689 179,659	\$ \$	27,597,349 3,012,089
Filli Fixed Fitte ilisulance and Bolius	Firm Fixed Price Subtotal	·	8,818,532	\$	6,431,090	\$	24,178,348	\$	30,609,438
Subcontract Allowance	Tilli Tixed Titce Subtotal	¢	18,854,682	\$	-	\$	18,854,682	\$	18,854,682
Subcontract Anowance	Design-Build Contract Total	\$	27,673,214	\$	6,431,090	\$	43,033,030	\$	49,464,120
Utility Relocation	Design Dana Contract Total	Y	27,075,214	٧,	0,751,050	, v	45,055,050	7	75,707,120
Utility Work		\$	31,552,369	\$	37,225,643	\$	7,622,244	\$	44,847,888
Terf Tax		Ť	31,332,303	\$	-	7	7,022,244	7	44,047,000
Project Management and Final Design		\$	4,727,549	\$	6,700,242	\$	946,948	\$	7,647,189
,	Utility Relocation Total	_	36,279,918	Ś	43,925,885	\$	8,569,192	\$	52,495,077
Right of Way	,				-,,		-,,		- ,, -
	Right Of Way Total	\$	44,772,663	\$	14,722,174	\$	2,765,559	\$	17,487,733
Airports Authority Services									
General Conditions <sup>4</sup>				\$	1,305,913	\$	109,344	\$	1,415,256
centeral conditions	Airports Authority Services Total	Ś		\$	1,305,913				1,415,256
Contingency	Airports Authority Services Total	۲		۲,	1,303,313	٧	103,344	Y	1,413,230
contingency	Contingency Total	¢	14,482,435	\$		Ś	2,346,043	\$	2,346,043
Total Interrelated Highway Improvements	- contingency lotal	\$	123,208,229	\$	66,385,062	\$	56,823,167	\$	123,208,229
	TOTAL PROJECT COST	\$	3,265,679,863		899,228,794	\$	2,366,451,069	\$	3,265,679,863
	TOTAL PROJECT COST	<u> </u>	0,200,070,000	7	000,110,704	_	_,000,-01,000	7	0,200,070,000
1 Reflects Paid costs through August 25, 2010									
2 Preliminary Engineering Period (PE) - Prior to August 1	2007								
2 i remimiary Engineering reflou (FE) - Fflor to August 1	, 2007								

<sup>2</sup> Preliminary Engineering Period (PE) - Prior to August 1, 2007
3 Preliminary Engineering actuals have been agreed to be \$100,730,999 This is \$237,646 under the original budget of \$100,968,646 The under run is transferred to unallocated contingency 4 The line item marked General Conditions includes Temporary Facilities Development, Hazardous Material Remediation, Miscellaneous Access Roads and Wiehle Ave Garage

<sup>5</sup> Estimate At Completion for federal contingency does not recognize any obligated contingency. See Federal Contingency Utilization Summary for details

## c. Project Funding Sources: August 2010

SOURCES OF CAPITAL FUNDING	GRANT ID	PERCENT AT COMPLETE	TOTAL	EXPENDED TO DATE <sup>1</sup>	PERCENT FUND SOURCE EXPENDED TO DATE	REMAINING
Sec 5309 New Starts Federal Funds						
Preliminary Engineering Grants			\$ 54,412,526	\$ 54,412,526		\$ -
Final Design Grant	VA-03-0113-01		\$ 159,001,838	\$ 159,001,838		\$ -
ARRA Construction Grant	VA-36-0001-00		\$ 77,260,000	\$ 77,260,000		\$ -
FFGA Construction Grant <sup>2</sup>	VA-03-0113-02		\$ 28,809,000			\$ 28,809,000
FFGA Construction Grant (Application Pending)	VA-03-0113-03		\$ 85,000,000			\$ 85,000,000
FFGA Balance	Planned		\$ 495,516,636	\$ -		\$ 495,516,636
Subtotal - New Starts		28.64%	\$ 900,000,000	\$ 290,674,364	32.30%	\$ 609,325,636
Other Federal Funds						
Sec 5307 Surface Transportation Program						
Construction Grant	VA-95-X056-01		\$ 47,218,109	\$ 40,399,288		\$ 6,818,821
Construction Grant (Application Pending)	VA-95-X056-02		\$ 21,281,890	\$ -		\$ 21,281,890
STP Balance	Planned		\$ 6,500,001	\$ -		\$ 6,500,001
STP/Sec. 5307		2.39%	\$ 75,000,000	\$ 40,399,288	54%	\$ 34,600,712
Local Funds						
VTA 2000			\$ 51,700,000	\$ 51,700,000		\$ -
Commonwealth Transportation Bonds <sup>2</sup>			\$ 125,000,000	\$ 72,521,371		\$ 52,478,629
Fairfax County Funds <sup>3</sup>			\$ 523,750,000	\$ 47,000,000		\$ 476,750,000
Dulles Toll Road Revenues <sup>2,4</sup>			\$1,467,021,634	\$ 330,548,709		\$ 1,136,472,925
Subtotal - Local Funds		68.97%	\$2,167,471,634	\$ 501,770,080	23.15%	\$ 1,665,701,554
Total Project Budget		100%	\$3,142,471,634	\$ 832,843,732		\$ 2,309,627,902
Interrelated Highway Activities			\$ 123,208,229	\$ 66,385,062		\$ 56,823,167
DTR Revenues/Commonwealth Funds <sup>3</sup>			\$ 123,208,229	\$ 66,385,062	53.88%	\$ 56,823,167
		Total	\$3,265,679,863	\$ 899,228,794		\$ 2,366,451,069

Reflects costs through August 2010

 $<sup>^2</sup>$  In January 2010, \$23 6M previously identified as pay-go Dulles Toll Road (DTR) Revenues were reclassified as Commonwealth Transportation Board (CTB) funds, reducing the contribution from DTR revenues and increasing the contribution from CTB funds

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

<sup>&</sup>lt;sup>4</sup> Includes pay-as-you-go revenues and bond proceeds

#### 6. 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 August 25, 2010, MWAA reports that it has utilized \$82,009,653 of the available authorized federal 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 *first* quarter of 2011. Phase 3 would complete the Utility Relocation Program now anticipated to complete in late October 2010. MWAA now reports that it has \$28,219,660 obligated from Phase 4 through 10 monies. Of the total project contingency of \$297,762,579, the project has \$198,303,617 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 3<sup>rd</sup> meeting that the white paper only addresses schedule contingency and not cost contingency. MWAA revised the white paper to include a discussion of cost contingency. To date, the PMOC has not agreed that the Project has advanced to Contingency Phase 3 without MWAA's satisfactory documentation. During the post meeting discussions on October 5, 2010, the PMOC suggested that MWAA include a discussion of their independent cost estimate for the Wiehle Avenue Station and its potential impact on MEP cost allocations. The PMOC also requested that MWAA update the Risk Management Plan. The Project Team has engaged the Risk Consultant used to prepare the original Risk Analysis to prepare the update to the Risk and Contingency Management Plan. During the quarter there were two two-day sessions held for the purpose of updating the data inputs to the revised analysis. It is expected that the results will be reported in the next quarterly report.

With regard to Schedule Contingency, the Project has utilized 98 calendar days of the total of 510 calendar days. The balance in schedule contingency is 412 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	Risk Description	SCC	Risk C	ategory	Status
No.		Reference	Cost	Sched	(Change from Previous Month)
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. Thirteen of thirtyone sub-contract packages 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 1,536-feet of excavation complete on the outbound tunnel and 1,293-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	Unchanged. (Replaced risk C-14.) Utility contractors faced heavy spring rains and unforeseen obstacles. Mitigation efforts continue and progress is being made. However, the cost and schedule impacts are not yet known and forecast completion dates continue to slip.

Risk	Risk Description	SCC	Risk (	Category	Status
No.	2401 2 0001 <b>P</b> 01011	Reference	Cost	Sched	(Change from Previous
					Month)
M-16	Cost risk for vehicle procurement	20.01	X	X	Unchanged. Bids were
	- size and timing of base order	20.02			received on June 19, 2009. The
	and options could change the car				WMATA Board approved an
	manufacturer's interest in project				award recommendation to
	and proposal pricing; vehicles				Kawasaki on May 27, 2010.
	may not be available in time for revenue operations.				However, the delivery of the last car is not scheduled to
	revenue operations.				occur until September 12, 2014
					which does not support Project
					needs. The WMATA Board
					awarded the contract to
					Kawasaki on July 27, 2010.
					NTP was issued on August 16,
					2010. A revised delivery date
					schedule has not been
					submitted.
M-12	Unpredictability of ROW	10.04	X		Unchanged. Use of
	settlement costs.				condemnation has increased the ROW costs.
C-20	WMATA scope of work,	10.00	X	X	Unchanged. Technical support
C-20	including site access support,	20.00	Λ	Λ	for design has been generally
	technical support and WMATA	50.00			provided in a timely manner,
	construction elements may exceed				although the backlog of design
	the budget and schedule. In				reviews continues to increase.
	addition, there is the risk that				SSWPs required to access
	WMATA will have difficulty				WMATA property are lengthy.
	supporting the DB contractor's				There is potential risk with
	requirements.				WMATA directing systems
					design upgrades for ATC,
					Traction Power and
D-19	Cost of Dominion Virginia Power	50.04	X		Communications systems. Unchanged. Design of
D-19	(DVP) 34.5 kV distribution –	30.04	Λ		Unchanged. Design of ductbank that will contain 34.5
	Level of design is not typical of				kV power the length of project
	100% PE design.				has been completed and the
					ductbank construction
					continues. Design by DVP to
					bring power to project has not
					been completed.

Risk	Risk Description	SCC	Risk C	ategory	Status
No.	_	Reference	Cost	Sched	(Change from Previous
					Month)
D-27	Permit Approvals – Potential	10.00	X	X	Unchanged. The issuance of
	delays due to the Virginia	20.00			construction permits is taking
	Department of Transportation	40.00			longer than anticipated and the
	(VDOT) requiring their				contractor is claiming that its
	review/approval of final design				costs are increasing. The Six
	plans prior to Issued for Proposal				Sigma process improved turn-
	(IFP) submittals. Potential delays				around time with VDOT. The
	due to the Department of General				VDOT requirement for final
	Services (DGS) making design-				design plans prior to IFP
	related comments rather than				submittals may increase the
	strictly permit/code comments.				risk. In addition, DGS is
					making design-related
					comments rather than strictly
					code/permit evaluations.

### 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.01	PMP Update (Nov. 2009)	MWAA's PMP needs to be updated to reflect the new integrated organization.				The integrated organizational structure has been formally implemented, and the PMP is now being updated to reflect this. MWAA	R
				Y	N	N	received the PMOC's comments from the PMP Compliance Review held on October 14, 2009. MWAA submitted a draft PMP Version 7.0 to the PMOC on September 3, 2010.	
1	2B.01	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	N	DTP submitted its comprehensive report to MWAA on July 20, 2010. CTI submitted its independent report to MWAA on August 16. MWAA and CTI conducted an audit of DTP's design calculations and related test data on September 15, 2010 to ensure that the test data supports the design requirements. Tensile strength test data on existing foundation rebar is expected back from the laboratory in mid October. MWAA will submit an all inclusive comprehensive report to the FTA and PMOC as soon as the rebar test data has been received.	R
3	2A.02	Update Permitting Plan Appendices (June 2010)	Appendices need to reflect actual permitting agencies roles and responsibilities	N	N	N	MWAA was requested to update the Permitting Plan Appendices at the June 2010 meeting.	R

KEY ITEM Subtask 2A CLIN 0002A - PMP Review Subtask 2B CLIN 0002 - On-Site Monitoring

#### **LEGEND**

PRIORITY (PR) **GRANTEE ACTION** PMO CONTRACTOR STATUS

1- Most Critical D – Remedial Action Developed R - Review On-going

2- Critical A – Remedial Action Approved C - Completed - No further review required

3- Least Critical I – Action Implemented

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

ASSHTO American Association of State Highway and Transportation Officials

BFMP Bus Fleet Management Plan

CD Calendar Days

CPM Critical Path Method CTI Consultants, Inc.

DB Design-Build

DGS (Virginia) Department of General Services
DIAAH Dulles International Airport Access Highway

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

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 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

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

WMATA Washington Metropolitan Area Transit Authority

XO Executive Officer

#### Appendix B - Project Overview and Map

**Date:** October 26, 2010 (reporting current through September, 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				
03/12/14	Revenue Operations Date (RC	D) as of Aug	gust 25, 2010				
21.0%	Percent Complete Construction	n <i>as of Septe</i>	mber30, 2010.				
27.47%	Percent Complete Time based on ROD of December 1, 2014 (based on FFGA)						
38.81%	MWAA's Estimate of Project Earned Value through September 2010						

#### 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 \$832.84 million Expenditures *through August 2010* from total project budget of \$3.142 billion Percent complete based on *federal scope* expenditures *through August 2010*.

\$198.3 million Total project contingency remaining (allocated and unallocated) through

August 2010.

## **Project Map**

Virginia WIEHLE AVENUE TYSONS CORNER Maryland Washington DC DUNNLORING VIRGINIA SQ CHIU [10]

### APPENDIX B - METRORAIL EXTENSION TO WIEHLE AVENUE

**LEGEND** 

Existing Orange Line Track and Station

Transfer Station

Parking

**Underground Station** 

New Station

Partially Below Surface Station

3 MILES

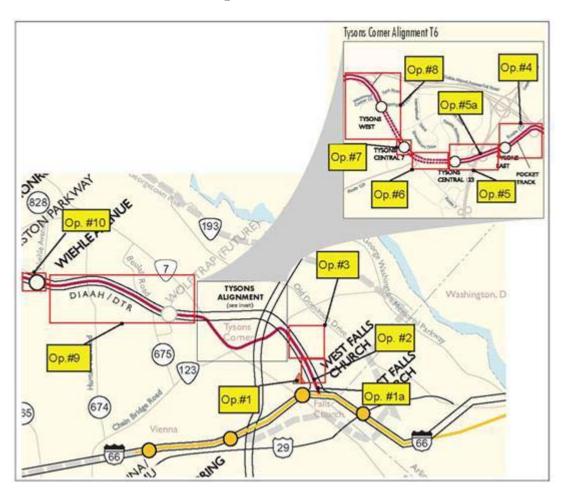
**DULLES CORRIDOR** METRORAIL PROJECT

Surface Track

······ Underground Track

Elevated Track

# **Operational Areas**



# $APPENDIX\ C-\underline{MWAA\ SAFETY\ AND\ SECURITY\ CHECKLIST}$

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		
Design/Build/Operate/Maintain, CMGG, etc)			
Project Plans	Version	Review By FTA	Status
Safety and Security Management Plan	9/2009		Accepted
Safety and Security Certification Plan			Under development; 98% complete
System Safety Program Plan			In response to FTA's Safety and Security Oversight Audit of TOC/WMATA and TOC Triennial Review findings, WMATA is updating its SSPP which is to be approved by TOC and submitted to FTA in January 2011.
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	T/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	WMATA's SSMP will be used. An updated WMATA SSPP, approved by TOC, is to be
		submitted to FTA by January 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 two representatives at the June 30, 2010 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		
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 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	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 the national average for the same type of work?	N	
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 – PMOC TEAM PERFORMING THIS REVIEW

