

**COMPREHENSIVE MONTHLY REPORT**

**October 2013**

**Dulles Corridor Metrorail Project  
Phase 2  
(Wiehle Avenue Station to Route 772 Station)**

Metropolitan Washington Airports Authority  
Washington, DC

December 3, 2013

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

**Task Order Number:** 009, **Project Number:** DC-27-5242, **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:** [REDACTED]

**Length of Time PMOC Assigned to Project:** 0.5 years

**Length of Time PMOC Lead Assigned to Project:** 0.5 years

## TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY .....</b>	<b>2</b>
1. PROJECT DESCRIPTION .....	2
2. PMOC’S ASSESSMENT OF PROJECT STATUS.....	5
<b>MAIN REPORT .....</b>	<b>6</b>
1. GRANTEE’S CAPABILITIES AND APPROACH .....	6
a. <i>Technical Capacity and Capability</i> .....	6
b. <i>Project Controls</i> .....	6
c. <i>Compliance</i> .....	7
2. PROJECT SCOPE .....	8
a. <i>National Environmental Policy Act (NEPA)/Environmental Assessment (EA)</i> .....	8
b. <i>Third Party Agreements</i> .....	8
c. <i>Design Status</i> .....	9
d. <i>Bidding and Construction Status</i> .....	9
e. <i>Real Estate</i> .....	15
f. <i>Utility Coordination</i> .....	16
g. <i>Vehicle Procurement</i> .....	16
3. PROJECT MANAGEMENT PLAN AND SUB-PLANS .....	16
4. PROJECT SCHEDULE.....	18
a. <i>Important Activities – 90-Day Look Ahead</i> .....	18
5. PROJECT COST .....	19
6. PROJECT RISKS .....	22
7. ACTION ITEMS .....	24
<b>APPENDICES.....</b>	<b>25</b>
APPENDIX A – <i>LIST OF ACRONYMS</i> .....	26
APPENDIX B – <i>PROJECT MAP</i> .....	27
APPENDIX C – <i>MWAA SAFETY AND SECURITY CHECKLIST</i> .....	28
APPENDIX D – <i>PMOC TEAM PERFORMING THIS REVIEW</i> .....	32

## EXECUTIVE SUMMARY

The Project Management Oversight Contractor (PMOC) met with Metropolitan Washington Airports Authority (MWAA) on *November 6, 2013* to conduct the monthly progress meeting for work performed in *October 2013* on Phase 2 of the Locally Preferred Alternative (LPA) for the Dulles Corridor Metrorail Project. The Phase 2 project extends from the Wiehle Avenue Station in Fairfax County through Dulles International Airport to the Route 772 Station in Loudoun County. The PMOC plans to conduct future PMOC monthly progress meetings 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), the Dulles Toll Road within Fairfax County, and the Dulles Greenway, a private toll road in Loudoun County. MWAA is implementing the LPA in two phases as described below.

Phase 1 of the Project (Initial Operating Segment), which is nearing completion, undertakes the construction of the initial 11.7 miles of the rail project from the existing Metrorail Orange Line just east of the West Falls Church (WFC) Station to a station to be constructed at Wiehle Avenue with a total project cost of \$3.142 billion. Included in the Project are five new stations (Tysons East, Tysons Central 123, Tysons Central 7, Tysons West and Wiehle Avenue), improvements to the existing yard at WFC, and tail tracks beyond the Wiehle Avenue station. The procurement of sixty-four new rail cars is also included for Phase 1.

Phase 2 of the Project will provide 11.4 route miles of new track from the interim terminus at Wiehle Avenue Station through Washington Dulles International Airport ("Dulles Airport") to a terminus in eastern Loudoun County. Phase 2 includes six new stations (Reston Town Center, Herndon, Innovation Center, Dulles Airport, Route 606 and Route 772 Stations). Phase 2 also includes a maintenance and storage yard facility at Dulles Airport, wayside facilities (including traction power substations, tie-breaker stations, and storm water management ponds along the alignment), five new parking facilities with a total of 8,900 parking spaces, and sixty-four new railcars. The current Phase 2 project budget is \$3,126,450,757 exclusive of finance costs. According to the current schedule, Phase 2 Revenue Service would begin in early 2019.

### **Project Status Summary**

The PMOC met with MWAA on *November 6, 2013* to conduct the Phase 2 monthly progress review meeting. The information provided is as of *October 31, 2013*, unless otherwise noted.

- **National Environmental Policy Act (NEPA)/Environmental Assessment (EA)** – MWAA and FTA prepared an EA in April 2012 covering the preliminary engineering design refinements for Phase 2, which they released for public review on May 10, 2012. Subsequently, the FTA Regional Administrator issued a Finding of No Significant Impact (FONSI) on December 17, 2012.
- **Procurement Status** – A Project Management Support Services (PMSS) consultant, Jacobs Engineering, supports the MWAA management team to ensure technical capacity and capability. The contract for the PMSS was signed on July 26, 2013, and the first task order

was issued to the PMSS to provide staffing support. The PMSS provided support for Phase 2 for preliminary engineering under a separate contract that expired on July 26, 2013.

Phase 2 is divided into several packages that will be procured separately: Package A includes the final design and construction of 11.4 miles of the rail line, stations and systems elements; The Advanced Earthwork Contract (Package S) is for the removal and relocation of the Phase 1 soils currently stockpiled at the Maintenance Facility site associated with Package B. Package B includes the final design and construction of the WMATA Maintenance Facility at the northwest corner of the Dulles Airport property; and Parking *Facilities* (formerly Package C) includes the design and construction of the five parking facilities at the stations in Fairfax and Loudoun counties. MWAA awarded the contract for Package A on May 14, 2013 and issued the Notice-to-Proceed (NTP) on July 8, 2013. *Likewise, MWAA awarded the contract for Package S on November 1, 2013 and issued the NTP on November 18, 2013.*

*MWAA issued a Request for Qualification Information (RFQI) solicitation for the Package B Contract on November 12, 2013 and the Pre-Submittal Conference is scheduled for December 4, 2013. The due date for qualifications submittals is December 20, 2013, with contract award and Notice-to-Proceed taking place in late summer 2014.*

- **Disadvantaged Enterprise Business (DBE) Goal** – MWAA developed a DBE Project Goal of 25% of federal participation cost for Phase 2 which was reviewed and accepted by FTA. Package A has a contract goal of 14%, the PMSS Contract has a goal of 25%, the Package S Contract has a goal of 25%; and the Package B goal is 14%. Fairfax and Loudoun Counties plan to procure the work in Parking Facilities (formerly Package C) without the use of Federal assistance; therefore, there would be no DBE requirement.
- **Third Party Agreements** – MWAA reported that it requires six Intergovernmental Agreements for Phase 2: WMATA, the Dulles Greenway, Loudoun County, Fairfax County, Virginia Department of Transportation (VDOT), and the Town of Herndon. As of *November 6, 2013*, five of the six Intergovernmental Agreements have been executed. The agreement with VDOT has been completed and is pending execution.
- **Real Estate Acquisition** – MWAA submitted the Real Estate Acquisition Plan (RAMP) for Phase 2 on August 19, 2013. At the PMOC's request, MWAA provided the Property Acquisition Listing on September 27, 2013. *The RAMP was reviewed by the PMOC and comments were provided to FTA on November 13, 2013.*

*MWAA reported that real estate acquisition for the Phase 2 project is directly under MWAA, unlike Phase 1 where real estate acquisition was the responsibility of the Design-Build (DB) Contractor. Capital Rail Constructors (CRC), the Package A contractor, is only responsible for utility relocation and real estate acquisition outside of the project limits as defined during Preliminary Engineering. MWAA awarded a contract for Appraisal Review Services on October 10, 2013.*

- **Permits** – MWAA submitted the Permit Management Plan to FTA on August 16, 2013. PMOC reviewed and provided its comments in a draft spot report to FTA on October 8, 2013. *FTA will issue one response to MWAA for both the RAMP and the Permit Management Plan.*
- **Design Progress** – MWAA reported that preliminary design *submittal* for the Phase 2 Project has been resubmitted by CRC and MWAA is performing a final review before

*transmitting the submittal to the respective Authority Having Jurisdiction (AHJ) (the Department of General Services and the Airports Authority Building Code Department) for approval. The Package A and Package B contractors will complete their Final Design. At present, Fairfax and Loudoun Counties would manage the final design of the parking facilities included in Parking Facilities (formerly Package C). MWAA has set a deadline of December 31, 2014 for the counties to confirm that they can deliver the completed parking facilities as required. Loudoun County has issued a solicitation through the Public-Private Transportation Act of 1995 for proposals from qualified private entities for the design, construction, financing, operation and maintenance of up to three parking facilities in Loudoun County in conjunction with Phase 2 of the Dulles Corridor Metrorail Project. The pre-proposal conference was held on September 23, 2013 and four proposals for each parking facility were received on October 30, 2013. Proposals are currently under review by Loudoun County.*

- **Construction Progress** – MWAA issued a NTP for the Package A Contract on July 8, 2013. The substantial completion date is July 7, 2018. *MWAA expects to issue a NTP for Package S on November 18, 2013, and the substantial completion date would be October 3, 2014.*
- **Budget Status** - The Phase 2 Engineer's Estimate was \$3,153,264,289, which included \$157,750,000 in unallocated contingency. This figure is in year-of-expenditure (YOE) dollars and excluded the finance costs. After the Package A firm-fixed price contract was awarded on May 14, 2013 at a cost below the engineer's estimate, MWAA adjusted the total Project Capital Cost from \$3,153,264,289 to \$2,902,000,000; however during the finalization of the Risk and Contingency Management Plan, MWAA modified the total Project Capital Cost to \$3,126,450,757 to account for secondary mitigation.

Primary funding for Phase 2 comes from MWAA (7.45%), Fairfax County (21.66%), Loudoun County (14.68%), Commonwealth of Virginia (10.34%), and the Dulles Toll Road (45.87%). MWAA, Fairfax County, and Loudoun County anticipate receiving a total of \$1.876 billion in direct loans under the United States Department of Transportation (USDOT) Transportation Infrastructure Finance and Innovation Act (TIFIA) credit assistance program to assist in financing their shares.

- **Risk** – MWAA submitted the Phase 2 Risk and Contingency Management Plan (RCMP) Revision 1 dated April 2013 to FTA for approval. On May 28, 2013, MWAA submitted their draft Standard Cost Category (SCC) Budget Workbook to the PMOC. The PMOC evaluated the Phase 2 budget, including the proposed level of contingency, and conducted a cost review workshop with MWAA on July 9, 2013. Following discussions held during the July 9, 2013 workshop and the August 8, 2013 Monthly Update meeting, regarding the Phase 2 budget, the proposed level of contingency, and the draft risk register, MWAA issued a revised draft RCMP, Revision 1b dated August 2013, for PMOC review on August 30, 2013, adjusting the total project cost to \$3,126,450,757, including base contingency of \$477,143,052 and a secondary cost contingency of \$146,211,294. *MWAA anticipates issuing the RCMP for FTA approval in the near future.*
- **Rail Car Procurement** - On August 15, 2012, MWAA authorized WMATA to amend their contract with Kawasaki to exercise the option for an additional sixty-four 7000 Series railcars for Phase 2. WMATA's letter of August 30, 2012 to MWAA confirmed the amendment to

the Kawasaki Contract for the Phase 2 railcars. The latest schedule from Kawasaki dated July 25, 2013 shows final delivery for the last Phase 2 vehicle no later than August 9, 2017.

- **Personnel** – The May 2013 Draft Project Management Plan (PMP) includes a staffing plan showing the gradual transfer of the Phase 1 staff to the Phase 2 project. Currently, Patrick Nowakowski, the MWAA Executive Project Director is dedicated 50 percent to Phase 2 through February 2014; Sam Carnaggio, MWAA Project Director is dedicated 10 percent to Phase 2 through February 2014; Karl Rohrer, MWAA Deputy Project Director is dedicated 100 percent to Phase 2. With the exception of Mr. Rohrer, the key personnel are the same as those working on Phase 1. This transition plan appears to be reasonable, although it may be impacted by any delay in the substantial completion of Phase 1.

## **2. PMOC's Assessment of Project Status**

As a result of the lessons learned and experience gained from the design and construction of the Phase 1 project, MWAA has developed a staffing plan necessary to effectively manage the Phase 2 project. FTA needs to monitor closely the transition of staff from the Phase 1 project to Phase 2 to ensure that there are adequate levels of dedicated and experienced staff on both projects through the completion of Phase 1 and the procurement activities and the start of final engineering of the Phase 2. Additionally, the effective working relationship between MWAA and WMATA during Phase 1 needs to continue for Phase 2.

MWAA incorporated into the Phase 2 project the design changes to enhance the new/improved system requested by WMATA during Phase 1. Hopefully, this will reduce the number of WMATA-requested design changes under Phase 2. Likewise, MWAA implemented lessons learned from the Phase 1 project to mitigate some of the potential risks in the Phase 2 project. Most significant of the lessons learned and implemented in Phase 2 was the elimination of Allowance Items, institution of a cost-loaded schedule requirement and requiring the DB Contractor to be responsible for utility relocations. These were elements that led to significant cost overruns in Phase 1. However, as the Phase 2 project progresses into bidding and construction, MWAA needs to remain proactive in identifying and mitigating potential risks.

# MAIN REPORT

## 1. Grantee's Capabilities and Approach

### a. Technical Capacity and Capability

Based on lessons learned during the Phase 1 project, Metropolitan Washington Airports Authority (MWAA) is implementing an integrated project management organization consisting of MWAA and Project Management Support Services (PMSS) staff. The Board approved the contract for the PMSS and the contract was executed on July 26, 2013. The first task order was issued to the PMSS, Jacobs Engineering, to provide staffing support for Phase 2. The PMSS provided support for Phase 2 for preliminary engineering under a separate contract that expired on July 26, 2013.

MWAA submitted a draft Project Management Plan (PMP) for Phase 2, Version 1.1, which includes project organization and staffing chart. Because most of the Phase 1 staff will be transitioning to Phase 2, labor distribution charts for each position were also provided to determine levels of staffing by month. The PMP, including the current Phase 2 staffing levels, were reviewed and comments *returned to MWAA for issuance of the final PMP on November 3, 2013.*

MWAA reported that the number of full-time equivalents for Phase 2 during *October 2013* is 336; an increase of 77 from *September 2013*. This is composed as follows: MWAA – 7, Virginia Department of Transportation (VDOT) – 6, Washington Metropolitan Area Transit Authority (WMATA) – 20, Project Management Support Services (PMSS) – 35, and CRC – 268. Of the 268 staff reported by CRC, some are located in the project office; the remainder is located in local design offices in Washington, DC and Virginia. *MWAA estimates that 80 percent of the CRC staff is design staff while the remaining 20 percent is management staff.*

MWAA negotiated and signed the lease for the Phase 2 project office on June 22, 2013. Renovations are ongoing and *MWAA is in the process of evaluating the 10 bids received for movers.* MWAA now plans to occupy the Phase 2 project office *by mid-November 2013.* Relocation to the new Phase 2 office has been delayed due to the fact that Federal regulations require that all contracts for the office build-out be competitively advertised. MWAA could not use its on-call contractors but had to issue new procurements that included all required federal clauses. Project staff will move in two phases: *one-third of the project staff in November 2013 and the remainder in January 2014.* The address for the Phase 2 project office is 198 Van Buren Street, Herndon, Virginia.

The Package A *Design-Build (DB)* Contractor, Capital Rail Constructors (CRC), and WMATA staff will be co-located with the MWAA project staff. The design team for CRC is located in an adjacent building.

Upon completion of the project, WMATA will become the operator of this extension to the existing Metrorail system. WMATA personnel have been active participants in the Phase 1 project, and the agency will have more staff involved on the Phase 2 project.

### b. Project Controls

MWAA is developing procedures with regard to monitoring and controlling project scope, quality, schedule, cost, contingency management, and safety. MWAA has

implemented lessons learned from the Phase 1 project for the Phase 2 contracts. Most significant of the lessons learned and implemented in Phase 2 was the elimination of Allowance Items, requiring the DB Contractor to implement a cost loaded schedule and to be responsible for utility relocations. These were elements that led to significant cost overruns in Phase 1. It is the PMOC's observation that MWAA continues to monitor and control the project in accordance with their draft procedures.

*MWAA has adopted an electronic document control system, Autodesk Constructware, for Phase 2. All submittals and correspondence are input into the system and made available for any staff member needing access to the documentation. As a part of the electronic document control process, MWAA is using Latista (a separate software application) to post and process review comments electronically. Reviewers can put their comments into the Latista system and the comments work their way back to CRC and a record of the communication is retained. MWAA is targeting all electronic distribution of plans, but is not quite there yet; hard copies are still being sent to some of the reviewers.*

### c. Compliance

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

- **DBE Goal** – MWAA has developed a DBE Project Goal of 25% of the federal participation cost for Phase 2, which was reviewed by the Region 3 Civil Rights Officer. FTA provided concurrence dated August 26, 2013 that the project DBE meets the requirements set out in the Department of Transportation DBE regulations. Package A has a contract goal of 14%, the PMSS Contract has a goal of 25%, the Package S Contract has a goal of 25%; the Package B has a goal of 14%. Fairfax and Loudoun Counties plan to procure the work in Parking *Facilities* (formerly Package C) without the use of Federal assistance; therefore, there is no DBE requirement.

MWAA reported that a kick-off meeting and follow-up meeting were held with CRC regarding their DBE plan for Package A and to discuss procedures for internal DBE reporting. The details are as follow.

- On October 3, 2013, MWAA met with CRC's DBE staff to discuss the DBE plan and DBE policy and procedures.
- On October 8, 2013, MWAA forwarded written comments to CRC's DBE staff outlining additional guidance for the DBE plan.
- On October 9, 2013, MWAA met with CRC's purchasing team and managers to discuss DBE policy and procedures and DBE plan.
- **Title VI** – FTA stated that Fairfax and Loudoun Counties will have to secure approved Title VI Plans because they will be recipients of TIFIA loan funds for the project. *Loudoun County reported that the Title VI Plan will be combined with the Board action to assume responsibility for the parking facilities. Both actions are now scheduled to go before the Loudoun County Board of Supervisors for approval and signature in January 2014. The revised January date allows staff to provide more substantive technical and financial information received from offerors pursuing*

*privatization of the parking facilities.* The Title VI plan will be submitted in *January 2014* to the Loudoun County Board of Supervisors for approval and signature.

*Fairfax County reported that the draft Title VI plan was received from their consultant on November 1, 2013, and is currently under review.* Fairfax County expects to take the Title VI plan to a closed session of the Fairfax County Board of Supervisors in November 2013 for their acceptance of the draft plan and then to the December Board meeting for approval. Fairfax County *anticipates* that it will then take an additional 12 to 18 months to implement the plan.

- **Labor Agreement** - The counties, along with MWAA, will have to sign a 13(c) agreement with the Department of Labor. FTA will initiate the process.
- **Community Outreach** – *MWAA provided its media and outreach calendar for Phase 2 and a November/December look-ahead calendar for community outreach. MWAA is finalizing the alert format and starting a more formalized rollout to the Dulles Airport tenants. CRC has also expanded their community outreach team and is providing updates on upcoming work.*

## **2. Project Scope**

Phase 2 of the Project will provide 11.4 route miles of new track from the interim terminus at Wiehle Avenue Station through Dulles Airport to a terminus in eastern Loudoun County. Phase 2 includes six new stations (Reston Town Center, Herndon, Innovation Center, Dulles Airport, Route 606 and Route 772). Phase 2 also includes a Maintenance Facility (maintenance and storage yard facility) at Dulles Airport, wayside facilities, including traction power substations, tie-breaker stations, and storm water management ponds, along the alignment, five new parking facilities at four stations to provide 8,900 parking spaces, and sixty-four new rail cars.

### **a. National Environmental Policy Act (NEPA)/Environmental Assessment (EA)**

MWAA prepared an Environmental Assessment covering the preliminary engineering design refinements for Phase 2, and issued it for public review on May 10, 2012. The FTA Regional Administrator issued a Finding of No significant Impact (FONSI) on December 17, 2012, that stated there were “no significant environmental or socioeconomic impacts associated with the design refinements for Phase 2 of the Dulles Corridor Metrorail Project.” FTA cautioned that should there be any changes in the location of the parking *facilities* by the counties, or if they need any additional property for the construction of the parking *facilities*, MWAA must notify FTA immediately to determine if the environmental documents would need revisions.

MWAA questioned whether a NEPA review/re-evaluation is still required if the *parking facilities* are being procured with local funds, and questioned whether only local requirements should be required. *FTA stated that the requirement for a NEPA review/re-evaluation will depend on the location of the parking facilities.*

### **b. Third Party Agreements**

MWAA reported that there are six Intergovernmental Agreements required for Phase 2: WMATA, the Dulles Greenway, Loudoun County, Fairfax County, Virginia Department of Transportation (VDOT), and the Town of Herndon. As of *November 6, 2013*, five of

the six Intergovernmental Agreements have been executed. The agreement with VDOT has been completed and is pending execution.

*At the November 6 meeting, MWAA reported that VDOT is widening Route 606 along the yard site under an on-going improvement project. After discussing the coordination of intersection improvements and an added turn lane required in Package B, MWAA and VDOT agreed to incorporate this work into the Route 606 widening project and MWAA will fund that portion of the work. This work has been included in the VDOT procurement package. MWAA and VDOT are working on a funding agreement, and anticipate having an executed agreement in February 2014. The advertisement for the Route 606 project is scheduled for December 2013.*

MWAA provided a summary of the status of finalizing agreements below.

AGREEMENT	STATUS	NOTES
WMATA – New Agreement	Executed on August 7, 2013	Effective date August 7, 2013
VDOT – Amendment of Phase 1 Agreement	Negotiations Completed - Final Terms Agreed.	Signature Pending
Fairfax County – Amendment of Phase 1 Agreement	Executed – May 28, 2013	Effective date May 28, 2013
Loudoun County	Executed – August 7, 2013	Effective date August 7, 2013
Town of Herndon	Executed – July 9, 2013	Effective date July 9, 2013
TRIP II (Dulles Greenway)	Executed – September 30, 2013	Effective date August 1, 2013
<i>Funding Agreement with VDOT for Route 606 improvements</i>	<i>Anticipated to be executed in February 2014</i>	

**c. Design Status**

Preliminary Engineering is complete for Phase 2. Final design and construction will be performed under the DB contracts for Package A as well as for Package B. Fairfax and Loudoun Counties will manage the final design of the parking *facilities* included in Parking *Facilities* (formerly Package C). The Counties have been asked to confirm delivery of those elements as a condition precedent to a TIFIA loan.

**d. Bidding and Construction Status**

- **New Mass Transit Line (Package A)**

In August 2012, MWAA issued a Request for Qualifications solicitation for the DB contract for Package A of the Phase 2 Dulles Corridor Metrorail Project. Five DB teams were shortlisted and a final Request for Proposals issued on February 6, 2013. At the opening of proposals on April 19, 2013, CRC, a joint venture consisting of Clark Construction Group, LLC and Kiewit Infrastructure South Company had the lowest responsible and responsive bid of \$1,177,777,000. On May 14, 2013, MWAA formally awarded the Package A Contract to CRC. NTP was issued on July 8, 2013 with a contractual duration for Package A of 1825 calendar days from NTP. Thus, the Substantial Completion Date for Package A is July 7, 2018.

The DB contractor, CRC, is in the *fourth* month of their contract and is continuing design activities. *CRC has submitted 19 of the 53 sixty percent design packages. MWAA has completed review of 8 packages and 11 are under review. The early design packages are for utilities and early civil work. The first station to be constructed will be the Innovation Center Station followed by the Dulles Airport Station because of its unique design; both are being advanced. The systems design packages will be the last to be submitted. Weekly design coordination review meetings, which started on July 31, 2013, are being held to advance the design. All 53 sixty percent design submittal packages are scheduled to be submitted through the remainder of this year and early next year. The design of the Project is expected to take eighteen months.*

MWAA received the preliminary design submittal on July 23, 2013 to establish the code year for building code compliance. *The resubmittal of the preliminary design submittal was received from CRC and MWAA is performing a final review before transmitting the submittal to the respective Authority Having Jurisdiction -- the Department of General Services and the Airports Authority Building Code Department -- to establish the building code year to be used for the project.*

*CRC has implemented a design management plan and has scoped out what will be included in every package and the interfaces between the packages. As part of the design process for Phase 2, there are a series of meetings leading up to the approval of a design package. First, a kick-off meeting is held between MWAA and CRC to discuss what CRC has proposed for the scope of the design package, whether MWAA thinks the scope proposed is appropriate, and whether additional scope needs to be added to the design submittal. About two weeks prior to the submittal of the design package, a pre-submittal meeting is held where CRC reviews what will be in the design package submittal. Once the design package is submitted and reviewed by MWAA, a comment resolution meeting is held. At the end of the process there is a record of design review. Integration between the design disciplines occurs at these meetings.*

Geotechnical borings and survey activities continue throughout the entire Phase 2 corridor, including the Dulles International Airport Access Highway (DIAAH). *Survey activities are approximately 75 percent complete with monument verification staking locations for various construction elements and setting control points for the aerial survey. Geotechnical survey is also continuing and is approximately 40 percent complete. The focus is currently on the wayside facility areas; however, work has been performed in the median of the DIAAH, at the Dulles Airport and out into the Dulles Greenway. Work in the area of the yard lead is scheduled to start shortly. As of September 2013, over 200 borings have been completed and the excavation of test holes for utilities is also ongoing.*

CRC is in the process of preparing and submitting *permit applications from VDOT and TRIP II for the Dulles Greenway associated with the early field activities. CRC is also in the process of completing the permit for their main field office at the Dulles Airport in one of the parking lots north along Autopilot Drive. The application was submitted and reviewed by MWAA, but CRC needs to supplement it. CRC is also*

*doing the analysis for some of the other environmental type permits that had not been filed as of the meeting.*

MWAA accepted CRC's cost-loaded Proposal Schedule for the first six months with a maximum payment of \$50 million, in addition to the cost of bonds, and insurance as a condition of the contract award. In August 2013, CRC resubmitted a revised cost-loaded Proposal Schedule. The revised Proposal Schedule was "Accepted as Noted" by MWAA Letter No. MWAA-P2-01014 dated September 4, 2013, and CRC is currently working and billing to the revised cost-loaded Proposal Schedule until the Baseline Schedule is approved.

*The Baseline Schedule was to be submitted by CRC on November 5, 2013, 120 days from NTP, per contract. CRC did not meet this contract milestone on time and MWAA requested the immediate submission of the first draft of the Baseline Schedule via Letter No. MWAA-P2-01115 dated November 8, 2013. CRC informally notified MWAA that the expected submission date would be on November 26, 2013. MWAA has 60 days to accept the Baseline Schedule after receipt from CRC.*

- **Dulles Maintenance Facility (Package B)**

Package B will include the final design of the Maintenance and Storage Yard. On June 6, 2013, MWAA submitted a cost validation study in response to a request from FTA. This study included updated plans and cost estimates for the redesign of the Dulles Maintenance Facility based on program reductions proposed by WMATA in late 2011. Some of the changes include: reduction in the yard storage track capacity from 250 railcars to an initial storage of 168, with the ability to expand to 228; reduction in the size of the Maintenance of Way and Warehouse buildings; and elimination of the Heavy Damage Building and inspection tracks and associated inspection pits in the Service and Inspection Maintenance Building. MWAA's evaluation shows that the reduced scope saves \$10 million.

MWAA has received comments from WMATA on the Package B contract documents and incorporating those comments in the procurement documents and the statement of work, and finalizing the contract drawings for Package B based on the reduced scope using some of the original plan details and layouts. MWAA stated that there were no major changes as a result of the WMATA review. *The contract drawings have gone through one cycle of reviews by MWAA and the second cycle of reviews which will include the specifications and the statement of work in December 2013.*

A two-step method similar to the procurement of Package A will be followed wherein MWAA will issue a Request for Qualifications Information (RFQI) and then request technical proposals and price proposals. The differences to Package A will be that instead of issuing a shortlist in response to the RFQI, MWAA will just prequalify potential bidders on a pass/fail basis. MWAA will then issue a Request for Proposal (RFP) to all qualified potential bidders, and hold two to three collaboration meetings with each team to clarify the understanding of the requirements. The technical proposals will be evaluated again on a pass/fail basis, and the cost proposal will be low bid. This process was presented to the MWAA Board of Directors in October 2013 for concurrence *and the MWAA Board of Directors did concur with MWAA's approach.*

MWAA sent a letter to WMATA confirming a budget for Package B of \$280 million, and stating what scope will and will not be included in the base contract package. MWAA added that the procurement would include options for the other scope items requested by WMATA but not in the base contract package.

*MWAA reported that VDOT is widening Route 606 along the yard site under an on-going improvement project. After discussing the coordination of intersection improvements and an added turn lane required in Package B, MWAA and VDOT agreed to incorporate this work into the Route 606 widening project and MWAA will fund that portion of the work. This work has been included in the VDOT procurement package. MWAA and VDOT are working on a funding agreement, and anticipate executing an agreement in February 2014. The advertisement for the Route 606 project is scheduled for December 2013.*

MWAA issued the RFQI solicitation for the Package B Contract on November 12, 2013, and qualifications are due on December 20, 2013. Issuance of the RFP is anticipated in late January 2014, with final contractor selection in May 2014, contract award in June 2014 and NTP in July 2014. Substantial completion is currently scheduled for June 29, 2018.

- **Advanced Earthwork for Maintenance Facility (Package S)**

The Phase 1 contractor used the site of the proposed Dulles Maintenance Facility to stockpile excavated material. To construct the new facility, it will be necessary to move most of the stockpiled material and re-grade the site. MWAA intends to award an Advanced Earthwork contract to move the stockpile to another site on Dulles Airport property. MWAA reported that the Package S contract documents were revised to ensure that the work for Package S is no longer within the Dulles Airport Air Operations Area. The same coordination procedures used during Phase 1 are already in place with the Dulles Airport staff and notices have been re-issued. The Advanced Earthwork contract will have a separate contractor, scope, DBE goal, and milestones from the Package B contract.

MWAA issued the Advanced Earthwork contract (Package S) solicitation on June 27, 2013 and held the pre-proposal conference on July 12, 2013. Ten bids were received on August 12, 2013 and a Notice of Recommended Award was sent to the lowest responsible bidder the week of August 26, 2013. However, the lowest bidder was found nonresponsive because it failed to demonstrate the required experience for its lead designer. The lowest bidder filed an initial protest that was denied by MWAA. The contractor then filed an appeal with the MWAA Chief Executive Officer (CEO); the protest was denied by Jack Potter, MWAA CEO, which is the final step in the MWAA appeal process. The MWAA CEO's decision on the protest is final; there is no appeal to the MWAA Board of Directors because the contract is not subject to Board approval. The PMOC reminded MWAA that the bidders can pursue their protests with the FTA. MWAA responded that the bidders can ask FTA to review the matter; however, they only have a couple of weeks before the protest period closes. *The lowest bidder has exhausted the protest process and did not forward the appeal to FTA.* Additionally, FTA has been notified of the protest denials by MWAA.

MWAA then contacted the second lowest bidder; however, on October 7, 2013, that bidder was disqualified due to noncompliance with the DBE substitution requirements. The second lowest bidder sent a letter on October 10, 2013 asking for reconsideration, then filed a protest on October 14, 2013, relying on the reasons set forth in the October 10 letter. *The second lowest bidder has since dropped their protest.*

On October 8, 2013, MWAA issued a Notice of Recommended Award to the third lowest bidder and *the contract was awarded to Atlantic Construction and Paving. on November 1, 2013. Atlantic Construction and Paving has previously performed work for MWAA.* The third lowest responsible bid was \$5.950 million, well under the engineer's estimate of \$18.52 million. *NTP was issued on November 18, 2013 with a contractual duration for Package S of 385 calendar days from NTP. Thus, the Substantial Completion Date for Package S is December 8, 2014.*

*MWAA acknowledged that the engineer's estimate was higher than the bids received primarily because their cost per cubic yard for removing material was much higher than the bidders' quotes. The differences were that there were fewer miles to haul the removed material; MWAA had assumed multiple locations for the removed material, and that the contractor would need to build a new haul road. However, the contractor is using the existing road and will improve the road. MWAA did perform an analysis for the procurement file explaining the discrepancies.*

- **Parking Facilities (formerly Package C)**

At present, Fairfax County and Loudoun County plan to procure the five required parking facilities.

Fairfax County is currently responsible for two parking facilities: one at the Innovation Center Station and one at the Herndon Station. *At the November 6, 2013 meeting, Fairfax County reported that the final locations for the parking facilities have not been determined, and it is still working on the joint rezoning application for the Innovation Center parking facility which was filed with the Fairfax County Planning and Zoning Department. Both the Innovation Center and Herndon Stations are in the conceptual design phase, and Fairfax County is reviewing locations options submitted by the design consultant. Both stations will be at schematic design by February 2014.*

The County's Department of Public Works and Environmental Services is the lead county agency for the design and construction of both parking facilities, *and will be responsible for the project management and oversight of both projects.* Fairfax County anticipates issuing a Design-Bid-Build solicitation through the Public Works and Environmental Services Department for the construction of both of their parking facilities. The County plans to design, construct, own, maintain, and operate both parking facilities. The selection of a firm to complete the final design for the parking facilities was expected in late August 2013. However, this has been delayed because the conceptual designs are not yet completed. The question with regard to whether or not a NEPA review is required is also negatively impacting the selection process for the final designs of the *parking facilities.*

On July 30, 2013, Fairfax County approved a Real Estate Exchange Agreement for the site of the Innovation Center Station. The Agreement provides for the exchange of property and property acquisition necessary to implement a joint development plan. The land use case is currently in process and will not be finalized until April 2014. Until the land use case is approved, Fairfax County will not have the final acceptance to proceed with the relocation of the *parking facility*.

Fairfax County is also evaluating a concept to move the Herndon *parking facility* to the east of the station and the County is in discussions with the adjacent landowner to initiate a land swap in order to relocate the *parking facility*. Fairfax County currently owns the land where the *parking facility* is proposed. Fairfax County anticipates resolving all issues with the adjacent landowner, and therefore the final location of the *parking facility*, by spring 2014.

Fairfax County has authorized approximately \$2.5 million to start design work on both *parking facilities*, and construction is expected to be completed in April 2018.

Loudoun County is currently responsible for three *parking facilities*: one at the Route 606 Station and two at the Route 772 Station. On November 16, 2012, Loudoun County issued a Solicitation for Conceptual Proposals through the Public-Private Transportation Act of 1995 for Loudoun County Parking Facilities. The solicitation requested the submittal of conceptual proposals from qualified private entities for the finance, design, development, construction, and operation of the parking facilities for Route 606 and 772 Stations. Following a detailed review of the proposals by Loudoun County staff, an action item was put before the Loudoun County Board of Supervisors requesting their approval to proceed with a Best and Final Offer for the three *parking facilities*. At its meeting on July 17, 2013, the Board voted to reject the three initial proposals which were received through a Request for Information process. The Board voted instead to solicit new proposals through a Request for Proposals (RFP) process.

Loudoun County has affirmed its strong desire to procure the *parking facilities* outside of the MWAA program and will confirm that response at the *January 2014* meeting of the Loudoun Board of Supervisors. Procurement of the *parking facilities* in Loudoun County is on an accelerated schedule. On September 3, 2013, Loudoun County issued a Request for Proposal for the design, construction, financing, operation and maintenance of the three Phase 2 *parking facilities*. Bidders could propose on one, two or all three sites, and the bidder for the Route 772 North *parking facility* will have to provide proof of ownership of the site. *During the November 6, 2013 meeting, it was reported that Loudoun County received four proposals for the privatization of each of the three parking facilities on October 30, 2013. Loudoun County is currently reviewing the bids.* After review of the proposals, the highest ranked offeror will be identified in January 2014. Negotiations with the selected offeror are expected to be undertaken in the January through July 2014 timeframe. Loudoun County intends to fully privatize the three parking facilities.

Loudoun County advised that the Route 772 South and Route 606 *parking facilities* will remain in the location identified in preliminary engineering. *Two proposals from private developers were received to finance, design, build, operate and maintain the*

*Route 772 North parking facility. The parking facility site contained in the Preliminary Engineering is proposed by one offeror. The second offeror is proposing a site in relatively close proximity to the Preliminary Engineering site. This site is owned by the second offeror. The evaluation of these proposals will take place during the coming months.*

**e. Real Estate**

MWAA submitted their Real Estate Acquisition Management Plan (RAMP), Revision 0, for Phase 2 on August 19, 2013. The PMOC requested the appendix listing the Phase 2 properties which was received by the PMOC via the Property Acquisition List letter dated September 27, 2013 on September 30, 2013. Details of the required properties will be developed during the design phase of the Package A Contract. *The PMOC has reviewed the RAMP and provided comments to FTA on November 13, 2013. FTA stated that one approval letter will be issued to MWAA for both the RAMP and the Permit Management Plan. FTA indicated that they would set up a teleconference to discuss the changes from the Phase 1 RAMP.*

*FTA questioned whether MWAA had sent a letter requesting to raise the threshold values for Phase 2. MWAA responded that the letter submitted to FTA in 2007 requested to raise the threshold values for the entire 23-mile corridor and not specifically Phase 1. In addition, the response received from FTA did not preclude the 11.4 miles of Phase 2 nor did it specify the 11.7 miles in Phase 1. As a result, MWAA determined that the threshold increase applied to the entire corridor. FTA will review the 2007 letter and determine if a second letter is needed.*

*Responsibility for Phase 2 right-of-way will be directly under MWAA and not under the DB Contractor as in Phase 1. The exception to this is CRC is responsible for utility relocation and property acquisitions outside of the parcels that MWAA has identified as part of the project itself. In conjunction with CRC, MWAA has identified the project parcels and broken them into priorities (1, 2, and 3) under the contract.*

Priority 1 parcels are primarily the wayside facility locations. MWAA is in the process of verifying the locations for the Priority 1 ancillary facilities and storm water ponds. MWAA is beginning to develop the property appraisals and the right-of-way plans for the Priority 1 acquisitions which are due to CRC by March 15, 2014.

*An RFP for Phase 2 appraisal review services was issued on June 7, 2013 and an award issued to Appraisal Review Specialists, LLC, on October 10, 2013 for a not-to-exceed cost of \$47,000. The majority of the Priority 1 appraisals has been completed and is with the review appraiser. MWAA added that the PMSS team will be the negotiator and relocation manager for the Priority 1 parcels. Because some of the properties are at the airport, MWAA is dealing with lease-holds as opposed to the acquisitions of the parcels.*

*MWAA has also retained a property acquisition consultant for the remainder for the parcels (Priority 2 and 3) using VDOT's specifications. A kickoff meeting was held on November 8, 2013.*

*During the November 6, 2013 meeting, MWAA reported that the archeological investigation in the area of the Yard Lead is ongoing. The initial 24 test pits were completed at the end of October 2013 and nothing of significance was found. MWAA*

*sent an interim report to the Department of Historical Resources (DHR) and DHR confirmed that it wants MWAA to complete the remaining 100 test pits which is ongoing and should be completed in late November/early December 2013. Once the additional test pits are completed, if nothing of significance is found, then the process would be completed pending confirmation by the DHR. There is only one test pit location that is in a location that conflicts with a pier location in CRC's design, so the archeologist investigation is not holding up any work. And DHR gave permission to perform geotechnical work everywhere else along the corridor with the exception of the one test pit location. Assuming nothing of significance is found; MWAA will complete the final report and submit it to DHR.*

**f. Utility Coordination**

MWAA submitted their Permit Management Plan, Revision 0, for Phase 2 on August 19, 2013. The PMOC has completed its review of the Permit Management Plan and provided a draft spot report with recommendations to FTA for review on October 8, 2013. MWAA advised that if the counties build the *parking facilities*, the counties themselves will be the code officials and not the Department of General Services. Also, the counties will be responsible for compliance with local requirements for storm water design and other design requirements. The contract with CRC states that all utility relocations associated with Package A are the contractor's responsibility. *FTA stated that one letter will be issued to MWAA for both the RAMP and the Permit Management Plan.*

**g. Vehicle Procurement**

On August 15, 2012, MWAA authorized WMATA to amend their contract with Kawasaki to exercise the option for an additional sixty-four 7000 Series railcars for Phase 2. WMATA's letter of August 30, 2012 confirmed the executed amendment to the Kawasaki Contract. The MWAA budget including contingency, in year of expenditure dollars, for the Phase 2 railcars is \$213.383 million. The latest schedule from Kawasaki dated July 25, 2013 shows final delivery for the last Phase 2 vehicle no later than August 9, 2017.

The original railcar award included cost escalation factors depending on when the options were exercised. In response to FTA's request, MWAA provided the current railcar budget for Phase 2, including the cost escalation factor based on when the option was exercised to confirm the current Phase 2 railcar budget. MWAA added that it sent an explanation, via email, to FTA regarding some inconsistencies in the information provided.

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

MWAA has submitted the PMP and required sub-plans. Below is the status of each plan received by FTA through *October 31, 2013*.

- MWAA submitted that latest version of the draft Phase 2 **Project Management Plan** (PMP), Version 1.1 to FTA on May 16, 2013 for FTA review and approval. Version 1.1 included modifications based on the comments received from FTA to Version 1.0, dated November 2012 submitted to FTA on December 7, 2012. The résumé summaries of key personnel were received on June 21, 2013. On August 2, 2013, the PMOC recommended that FTA accept the PMP Version 1.1, with comments, and *on November 3, 2013 FTA directed MWAA to*

*address the comments provided and formally issue the final PMP for this stage of the Phase 2 project for approval.*

- MWAA submitted the latest revision of the Phase 2 **Quality Program Plan (QPP)**, Revision 1, to the FTA on March 26, 2013 for FTA review and approval. The QPP incorporates the changes to address the PMOC comments to QPP Revision 0, dated October 24, 2012 submitted to FTA on December 12, 2012. The comments were discussed after the March 7, 2013 FTA/PMOC monthly meeting, and were addressed and closed. The PMOC recommended acceptance, with comments, of the QPP to FTA on May 17, 2013, and on September 23, 2013, FTA approved the Phase 2 QPP, Revision 1, and requested that MWAA update it as needed as Phase 2 continues to move forward through final design and construction. In addition, FTA requested that MWAA submit the Phase 2 Project Management Procedures to FTA and the PMOC for review. *MWAA responded that they are working on getting the procedures updated and finalized for submittal.*
- MWAA submitted the Phase 2 **Safety and Security Management Plan (SSMP)**, Revision Draft dated February 28, 2013, to the FTA on March 27, 2013 for review and approval. On May 17, 2013, the PMOC recommended that the FTA accept the SSMP contingent upon the signature by WMATA's Chief Safety Officer. MWAA addressed the three recommendations included in the PMOC review and the SSMP, Revision 0 dated July 2013 was signed off by WMATA's Chief Safety Officer on August 6, 2013. The PMOC recommended acceptance of the SSMP, Revision 0 to FTA on September 3, 2013. *FTA reported that the letter accepting the SSMP has been forwarded to the FTA Regional Administrator for signature.*

The Tri-state Oversight Committee (TOC) stated that they are revising the Safety and Security Oversight Management Plan for Phase 2 to clearly outline the lines of authority between the TOC, MWAA and WMATA.

- MWAA submitted the latest revision of the Phase 2 **Risk and Contingency Management Plan (RCMP)**, Revision 1, to the FTA on April 24, 2013 for review and approval. Revision 1 included modifications based on the comments received from FTA to Revision 0, Draft 2, dated December 2012. MWAA submitted their draft SCC Budget Workbook to the PMOC on May 28, 2013. MWAA, FTA and the PMOC met on July 9, 2013 to review MWAA's development of project costs. Based on the discussions during the review meetings, MWAA issued a revised RCMP Revision 1a for PMOC review on July 31, 2013.

The July 2013 RCMP included a lower secondary mitigation target than that recommended by the PMOC in the July 9, 2013 meeting based on MWAA's assessment that some of the beta factors assumed by the PMOC could be lowered by this stage of the project. On August 8, 2013, a subsequent meeting was held with MWAA to discuss the development of secondary contingency provided. On August 14, 2013, the PMOC completed a sensitivity analysis of the Modeled Contingency Requirement and concluded that there is still the indication that additional contingency is needed over that currently included in the project budget of \$2,902 million. The PMOC recommended that the project budget should include ample contingency for all project risks and recommended a project budget of \$3,126 million.

Upon further review of the PMOC comments and further consideration of the overall status of the Phase 2 program, MWAA issued a revised draft RCMP, revision 1b, for PMOC review on August 30, 2013, adjusting the total project cost to \$3,126,450,757, including base contingency of \$477,143,052 and a secondary cost contingency of \$146,211,294. The

PMOC has completed its review of the RCMP and on September 3, 2013 recommended acceptance, with comments, to FTA. *MWAA advised that there is one more comment in the RCMP to be revised and that they anticipate issuing the revision to the RCMP in the near future.*

- Since WMATA, rather than MWAA, will be the operator of the completed project, the WMATA **Rail Fleet Management Plan (RFMP)** is the applicable document. WMATA submitted RFMP, Revision J, on August 1, 2013 and FTA accepted it on August 8, 2013.

#### 4. Project Schedule

Phase 2 is currently in the procurement phase. Construction is expected to begin in February 2014 with the start of utility relocation and with the commencement of revenue service on January 2, 2019. The table below shows the Phase 2 milestones, as provided by MWAA in the latest schedule dated August 28, 2013 and updated during the *November 6, 2013* meeting.

<b>DULLES CORRIDOR PHASE 2 MILESTONES</b>	
<b>DESCRIPTION</b>	<b>DATE</b>
Package A Design-Build Contract Award	05/14/2013 (A)
Package S Advanced Earthwork Contract IFB	06/27/2013 (A)
Package A Contract NTP	07/08/2013 (A)
Package S Advanced Earthwork Contract Award	11/01/2013 (A)
Package S Advanced Earthwork Contract NTP	11/18/2013 (A)
Package B Contract RFQI	11/12/2013 (A)
Package B Contract RFP	01/25/2014
Package B Contract Award	June 2014
Package B Contract NTP	July 2014
Package S Advanced Earthwork Contract Substantial Completion	12/08/2014
Deadline for Fairfax and Loudoun Counties' decision to construct the Parking Facilities	12/31/2014
Construction of Parking Facilities Complete	06/29/2018
Package B Contract Substantial Completion	06/29/2018
Package A Contract Substantial Completion	07/07/2018
Begin Operations Readiness Testing	07/07/2018
Complete Operations Readiness Testing	09/04/2018
Project Final Acceptance	09/04/2018
Begin WMATA Revenue Operations Acceptance Testing	09/05/2018
Complete WMATA Revenue Operations Acceptance Testing	01/02/2019
Revenue Service Date	01/02/2019

##### a. Important Activities – 90-Day Look Ahead

- MWAA receive and approve of the Package A Baseline Schedule.
- Loudoun County resolves the landowner dispute on the Route 772 North *parking facility* property.
- Loudoun County receive and analyze the bids for the design, construction, financing, operation and maintenance of the three Phase 2 parking *facilities* in Loudoun County; issue contract award and NTP.
- MWAA execute third-party agreement with VDOT.

- Loudoun County Board of Supervisors approves the Title VI plan in December 2013.
- Fairfax County Board of Supervisors approves the Title VI plan in December 2013.
- *Loudoun County Board of Directors action to assume responsibility for the parking facilities in January 2014.*
- MWAA complete the management plan in accordance with Section 106 of the National Historic Preservation Act of 1966 for the Yard Lead location.

## 5. Project Cost

MWAA's current Phase 2 project budget is \$3,126,450,757, including the cost of the parking facilities to be funded by Fairfax and Loudoun Counties. This figure is in year-of-expenditure dollars and excludes the finance costs. Below is the breakdown of that budget:

PHASE 2 ESTIMATED CAPITAL COSTS (\$MILLIONS)	
SCOPE AND FTA COST CATEGORIES	COST
Guideway and Track Elements	\$ 409
Stations	\$ 261
Support Facilities: Yards, Shops, Admin. Bldgs	\$ 285
Site Work & Utilities	\$ 438
Train Systems	\$ 210
Right-of-Way and Property Acquisition	\$ 64
Railcars and Support Vehicles	\$ 213
Design and Engineering Services	\$ 523
Unallocated Contingency	\$ 376
<b>Baseline Project Cost Estimate</b>	<b>\$ 2,778</b>
County-Funded Elements	\$ 348
<b>TOTAL PROJECT CAPITAL COST</b>	<b>\$ 3,126</b>

Primary funding for Phase 2 comes from MWAA (7.45%), Fairfax County (21.66%), Loudoun County (14.68%), Commonwealth of Virginia (10.34%), and the Dulles Toll Road (45.87%). MWAA, Fairfax County, and Loudoun County anticipate receiving a total of \$1.876 billion in direct loans under the United States Department of Transportation (USDOT) Transportation Infrastructure Finance and Innovation Act (TIFIA) credit assistance program to assist in financing their shares.

SOURCES OF CAPITAL FUNDING (\$Millions)				
	Multi-funded Elements	County-Funded Elements	Phase 2 Total	Percentage of Total
Commonwealth of Virginia	\$ 323	\$ 0	\$ 323	10.34%
Fairfax County	\$ 515	\$ 162	\$ 677	21.66%
Loudoun County	\$ 273	\$ 186	\$ 459	14.68%
MWAA (Aviation Funds)	\$ 233	\$ 0	\$ 233	7.45%
MWAA (Dulles Toll Road)	\$ 1,434	\$ 0	\$ 1,434	45.87%
<b>Total Sources of Funding</b>	<b>\$ 2,778</b>	<b>\$ 348</b>	<b>\$ 3,126</b>	<b>100.00%</b>

The TIFIA working group continues to meet on a weekly basis. On June 21, 2013, MWAA, and Fairfax and Loudoun Counties presented the financial plans for the project to the USDOT TIFIA staff and consultants. All parties within the TIFIA working group are fully engaged in ensuring TIFIA has all due diligence deliverables, and MWAA, Fairfax and Loudoun Counties are actively preparing to submit an application once invited. Fairfax and Loudoun Counties have agreed to remove the parking *facilities* from the TIFIA loan and construct the *parking facilities* using funding outside of the TIFIA eligible budget. In exchange for removing the funds from the TIFIA eligible costs, the Counties will agree to deliver the *parking facilities* without requesting funding from the Phase 2 project budget. This agreement is pending completion. MWAA, Fairfax and Loudoun Counties have each remitted \$233,000 to TIFIA to-date to prefund financial advisory and legal work by the TIFIA office.

Each loan requestor is fulfilling its requested deliverables to TIFIA's due diligence:

MWAA: On April 11, 2013, MWAA provided the financial feasibility study to the TIFIA Joint Program Office. On May 9, 2013, MWAA submitted its initial plan of finance and financial model, and indicative rating to the TIFIA Joint Program Office. As of October 17, 2013, MWAA has submitted all of the items requested by TIFIA for due diligence. MWAA hopes to complete the TIFIA loan process by the end of the year.

Fairfax County: Fairfax County submitted its initial plan of finance and financial model, indicative rating, and feasibility study to the TIFIA Joint Program Office on June 5, 2013. As of the October 10, 2013, Fairfax County reported that it has submitted everything that has been required by the TIFIA Joint Program Office; however, Fairfax County is working through some issues regarding the conditions for repayment of the loan using the commercial and industrial tax revenues.

Loudoun County - Loudoun County submitted its initial plan of finance and financial model, indicative rating, and feasibility study to the TIFIA Joint Program Office on June 14, 2013. Loudoun County reported that they are up to date on all its required submittals, including financial information, to the TIFIA Joint Program Office. The Loudoun County finance department staff has started to review the application in an effort to get a head-start on the application process.

The SCC Project Cost Summary by SCC Code as provided by MWAA in October 2013:

	SCC Code	SCC Category	YOE Estimate Including Contingency (x\$1,000)
<b>Contract Package A</b>	10	Guideway	\$ 340,953
	20	Stations, Stops, Terminals, Intermodals	\$ 224,433
	30	Support Facilities: Yards, Shops and Admin Bldgs	\$ 377
	40	Sitework and Special Conditions	\$ 352,760
	50	Systems	\$ 172,044
	60	ROW, Land and existing improvements	\$ -
	70	Vehicles	\$ -
	80	Professional services and Agency costs	\$ 87,210
	90	Unallocated Contingency	\$ -
		<b>Package A Total</b>	<b>\$ 1,177,777</b>
<b>Contract Packages B + S</b>	10	Guideway	\$ -
	20	Stations, Stops, Terminals, Intermodals	\$ -
	30	Support Facilities: Yards, Shops and Admin Bldgs	\$ 247,207
	40	Sitework and Special Conditions	\$ 29,513
	50	Systems	\$ -
	60	ROW, Land and existing improvements	\$ -
	70	Vehicles	\$ -
	80	Professional services and Agency costs	\$ 23,280
	90	Unallocated Contingency	\$ -
		<b>Packages B + S Total</b>	<b>\$ 300,000</b>
<b>Owner Costs</b>	10	Guideway	\$ 67,552
	20	Stations, Stops, Terminals, Intermodals	\$ 36,299
	30	Support Facilities: Yards, Shops and Admin Bldgs	\$ 36,996
	40	Sitework and Special Conditions	\$ 55,981
	50	Systems	\$ 38,009
	60	ROW, Land and existing improvements	\$ 63,646
	70	Vehicles	\$ 213,383
	80	Professional services and Agency costs	\$ 412,939
	90	Unallocated Contingency	\$ 375,654
		<b>Owner Costs Total</b>	<b>\$ 1,300,459</b>
		<b>Package A + B + S + Owner Costs Total</b>	<b>\$ 2,778,236</b>
<b>Parking Facilities</b>	10	Guideway	\$ -
	20	Stations, Stops, Terminals, Intermodals	\$ 227,737
	30	Support Facilities: Yards, Shops and Admin Bldgs	\$ -
	40	Sitework and Special Conditions	\$ 3,957
	50	Systems	\$ 6,823
	60	ROW, Land and existing improvements	\$ 10,825
	70	Vehicles	\$ -
	80	Professional services and Agency costs	\$ 65,794
	90	Unallocated Contingency	\$ 33,079
		<b>Parking Facilities Total</b>	<b>\$ 348,215</b>
		<b>Program Grand Total</b>	<b>\$ 3,126,451</b>

(Cost in the table above are shown in thousands)

On May 14, 2013, MWAA awarded the Package A Contract for final design and construction of the line and stations in the amount of \$1,177,777,000. This was \$307.6 million below the engineer's estimate, which did not take into account the Insurance line item that was deleted from the contract award amount; MWAA will now issue an Owner Controlled Insurance Program (OCIP), estimated to cost \$50 million, and will transfer this item from Package A to the Owner Cost. Thus, the net savings realized is approximately \$258 million.

## 6. Project Risks

MWAA submitted the latest revision of the Phase 2 Risk and Contingency Management Plan (RCMP), Revision 1b, to the FTA on August 30, 2013, including MWAA's proposed Top Ten Risks to FTA for review and approval. MWAA has identified four primary mitigation strategies; however, MWAA and the PMOC agree that the primary and secondary mitigation measures should be developed in more detail following the award of all the DB contracts.

- **Budget Risks:** MWAA has allocated \$623 million in contingency for the overall project. Contingency is further broken down by Package as follows: \$289 million for Package A, \$109 million for Package B, and \$72 million for Parking *Facilities* (formerly Package C). A contingency management plan has been established for the release of contingency based on contract milestones. The Phase 2 budget of \$3,126,450,757 includes a base cost contingency of \$477,143,052 and a secondary cost contingency of \$146,211,294.
- **Schedule Risks:** The result from MWAA's schedule risk analysis shows that there is less than 5 percent chance that the Schedule Substantial Completion Date (SSCD) will take place on July 7, 2018. The 80% confidence level date for the SSCD is December 6, 2018, indicating a hypothetical delay of 152 calendar days. The schedule risk analysis performed by the project team was limited to the SSCD. For the Revenue Service Date, the project team has accepted the recommendation by PMOC to include a time contingency of 14 months in the overall program schedule. Overall, the schedule contingency including the WMATA testing through the Revenue Service Date is 14 months.
- **Top Ten Risks:** In its August 2013 RCMP, Revision 1b, MWAA provided a summary of the Top Ten Risks for review and approval. Below is the MWAA proposed Top Ten Risks submitted to FTA in the RCMP.

## Summary Status of the Top Ten Project Risks, August 2013 RCMP

RCMP Revision 1b - August 2013			
Risk ID	Event Description	(Proposed Primary) Risk Mitigation	Risk Rating
80.R.1	Project Team and various Agencies add new design requirements not currently included in the PE documents.	Project Team earliest possible exploration and identification of politically based/influenced issues from any and all sources and the timely implementation of a solution that minimizes cost and schedule impact to the Project.	32
40.C.98	Utility Companies involved in the utility relocation delay the DB.	DB to establish agreements with utility companies to start relocations work in advance of construction and complete by earliest need date in DB schedule for timely Project Completion.	27
20.C.103	PE Design for the Dulles Airport Station mezzanine construction on either or both sides of North Garage Walk-back Tunnel proves challenging due to extent of as-built conditions and construction alterations required to the existing tunnel.	DB to undertake early exploration and verification of existing conditions and provide, as required, alternative solutions. Project Team to allow maximum flexibility in design parameters for Dulles Airport Station to encourage DB to achieve optimum final design-construction solutions to lower cost & simplify construction and accommodate patron interface.	27
80.D.70	Loudoun and Fairfax Counties interfering with the design process of the parking garages and do not complete design documents in a timely manner.	Project Team to coordinate with Loudoun and Fairfax Counties to ensure timely issuance of DB packages for Garages and completion of designs.	27
20.R.124	Fairfax and Loudoun Counties, when assigned responsibility, do not complete procurement and construction of parking facilities in timely manner.	Project Team to develop a plan as to how it would build parking facilities in the event of failure by either Fairfax or Loudoun County, and identify and allocate funding sources, enforce deadlines for timely decisions and actions by Fairfax and Loudoun Counties.	27
80.D.39	Fairfax and Loudoun Counties, VDOT, Reston and Town of Herndon require local roadway improvements & traffic signal integration not currently planned or represented in the PE design.	DB to undertake early coordination with the Project Team, Loudoun and Fairfax Counties, Reston and Town of Herndon, VDOT and the owners/developers of congruous and adjacent real property..	24
80.D.43	Initial PE design addressing issues of real property acquisition is incomplete, vague or ambiguous.	Project Team to perform advance supplemental analysis of PE design and real estate requirements; Project Team include pessimistic availability dates in DB Contract Documents.	24
40.R.96	VDOT, Loudoun County, Fairfax County, Reston, and/or Town of Herndon do not provide new roadways or alteration connecting existing roadways to Project station and parking facility access points.	The Project Team is to coordinate and clarify the responsibilities and obligations of Loudoun and Fairfax Counties, the Town of Herndon, Reston, and VDOT, in the IGA and engage the above named counties and local authorities to solidify buy-in from owners and developers of contiguous and adjacent properties for completing access roadways availability to meet the DB schedule for Project Completion.	21
80.C.193	DB does not issue complete and coordinated documents for use in design, construction and the permitting process.	The Project Team is to coordinate the clear articulation in the DB RFP documents the expectations for DB early establishment of submissions procedures and compliance therewith during design and construction, to include establishment of interim milestones during the design phase that are enforceable. Furthermore, the Project Team has to ensure that the DB Contract Documents clearly articulate the DB responsibilities and obligations to provide full and complete submissions to include the work scope of all disciplines required to complete construction and that submittals are staggered to prevent overloading of the review systems.	18
60.R.22	Project Team or DB does not make timely acquisition of right-of-way permanent and temporary easements.	The Project Team shall coordinate the early acquisition of right-of-way and easements so as to not impact the DB design and construction process and progress.	18

## 7. Action Items

### MWAA – DULLES CORRIDOR METRORAIL PROJECT PHASE 2- Items for Grantee Action

PR	ITEM	IDENTIFICATION	NATURE of PROBLEM	D	A	I	COMMENTS	STATUS
1	2A	Fairfax and Loudoun need to submit Title VI Plan for FTA review and approval.	Any project receiving federal funds needs to submit a Title VI Plan for review and approval by FTA.	Y	N	N	Loudoun County submitted its Title VI Plan to FTA and received some comments for review and response. Fairfax County hired a consultant to develop its Title VI Plan and the consultant <i>submitted the draft Plan by November 1, 2013. The plan is under review by Fairfax County.</i>	R
3	2B	FTA to approve MWAA management plans	MWAA submitted the PMP, QPP, SSMP, RCMP, Permit Management Plan and RAMP.	Y	N	N	FTA approved QPP on September 23, 2013. PMOC recommended acceptance with comments of the PMP, QPP, SSMP, RCMP and Permit Management Plan to FTA. FTA to provide response to MWAA.	R
1	2B	FTA to confirm whether further NEPA review will be required for changes to the Loudoun and Fairfax <i>parking facility</i> locations.	The <i>parking facilities</i> being procured by Loudoun and Fairfax Counties are being procured with local funds only.	N	N	N	<i>FTA stated that the requirement for a NEPA review/re-evaluation will depend on the location of the parking facilities. NEPA review/re-evaluation may be required for changes to the parking facility locations.</i>	R
1	2A	<i>The assurances provided by the FTA are not the same as those used by USDOT.</i>	<i>Loudoun County has no problem with the content of the assurances provided by the FTA; however, Loudoun's legal representative would like clarification.</i>	N	N	N	<i>FTA contacted a Loudoun County official, but he has not responded.</i>	R

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

Subtask 2A CLIN 0002A – PMP Review  
 Subtask 2B 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

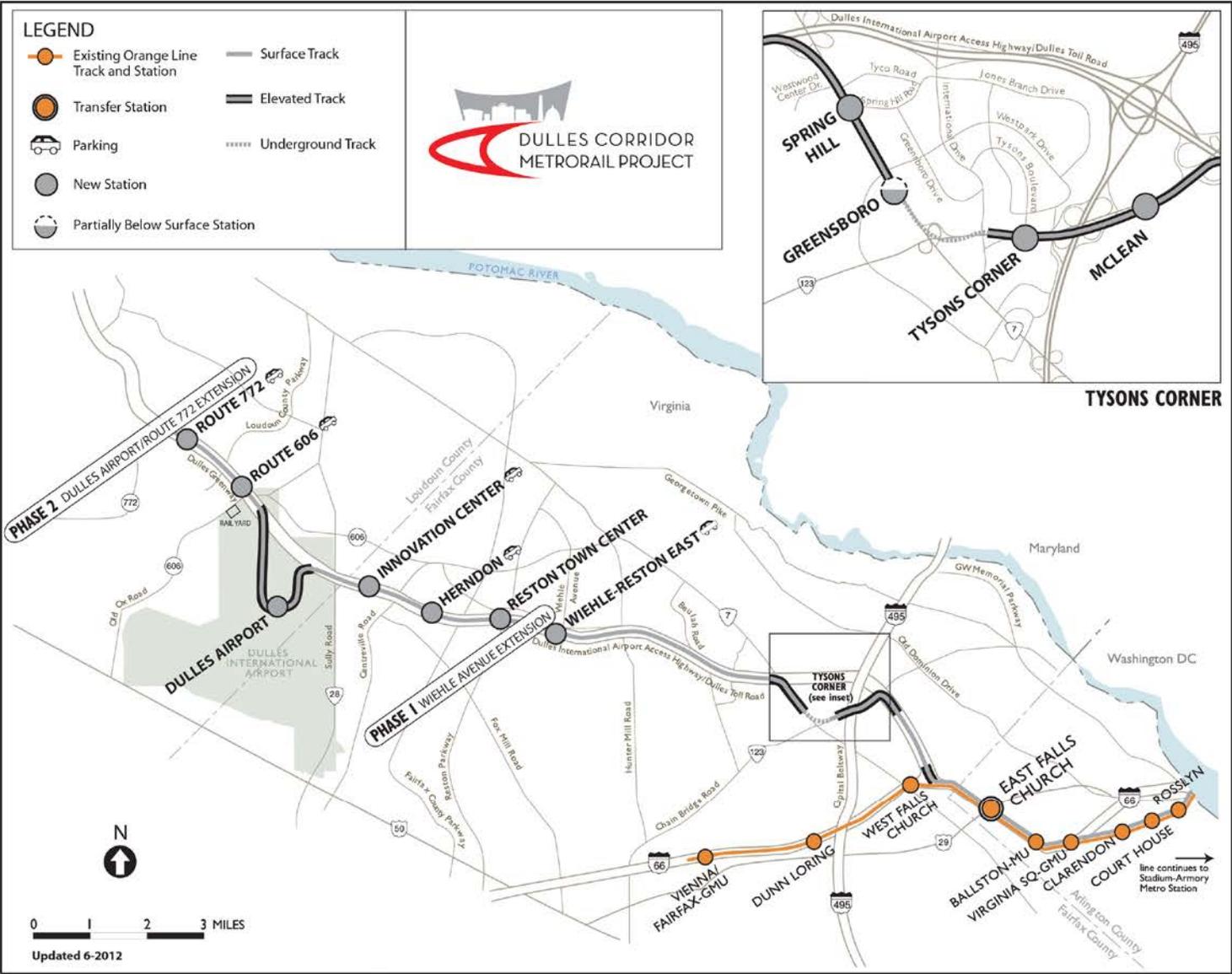
**PMO CONTRACTOR STATUS**  
 R – Review On-going  
 C – Completed – No further review required

# APPENDICES

## APPENDIX A – LIST OF ACRONYMS

AHJ	Authority Having Jurisdiction
Board	MWAA Board of Directors
CRC	Capital Rail Constructors
DB	Design-Build
DBE	Disadvantaged Business Enterprise
<i>DHR</i>	<i>Department of Historical Resources</i>
DIAAH	Dulles International Airport Access Highway
EA	Environmental Assessment
FONSI	Finding of No Significant Impact
FTA	Federal Transit Administration
LPA	Locally Preferred Alternative
MWAA	Metropolitan Washington Airports Authority
NEPA	National Environmental Policy Act
NTP	Notice to Proceed
OCIP	Owner Controlled Insurance Program
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
RFMP	Rail Fleet Management Plan
RFQI	Request for Qualifications Information
RFP	Request for Proposal
SCC	Standard Cost Category
SSCD	Schedule Substantial Completion Date
SSMP	Safety and Security Management Plan
TBD	To Be Determined
TOC	Tri-state Oversight Committee
TIFIA	Transportation Infrastructure Finance and Innovation Act
USDOT	United States Department of Transportation
VDOT	Virginia Department of Transportation
WFC	West Falls Church
WMATA	Washington Metropolitan Area Transit Authority

# APPENDIX B – PROJECT MAP



## APPENDIX C – MWAA SAFETY AND SECURITY CHECKLIST

<b>Project Overview</b>	<b>Dulles Corridor Metrorail Project – Phase 2</b>		
Project Mode (Rail, Bus, BRT, multimode)	Rail		
Project Phase (Preliminary Engineering, Design, Construction, or Start-up)	Design and Construction		
Project Delivery Method (Design/Build, Design/Build/Operate/Maintain, CMGG, etc)	Design/Build		
<b>Project Plans</b>	<b>Version</b>	<b>Review By FTA</b>	<b>Status</b>
Safety and Security Management Plan	July 2013		MWAA’s SSMP Rev.0 dated July 2013 was submitted for review and approval in response to comments on the Draft SSMP on August 12, 2013 and is under FTA review.
Safety and Security Certification Plan			To be developed by WMATA. (WMATA’s SSCPP March 2012 Revision 9 used in Phase 1 was accepted by the FTA on April 13, 2012.)
System Safety Program Plan	January 2013		WMATA’s 2013 SSPP is effective January 2013 and approved by TOC on February 15, 2013.
System Security Plan or Security and Emergency Preparedness Plan (SEPP)			WMATA’s SEPP is effective March 2012
Construction Safety and Security Plan			Project is in early D-B stage. Contractors to develop plan.

<b>Safety and Security Authority</b>	<b>Y/N</b>	<b>Notes/Status</b>
Is the grantee subject to 49 CFR Part 659 State Safety Oversight requirements?	Y	Tri-State Oversight Committee (TOC)
Has the State designated an oversight agency as per Part 659.9?	Y	Tri-State Oversight Committee (TOC)
Has the oversight agency reviewed and approved the grantee’s SSPP as per 659.17?	Y	An updated WMATA SSPP dated January 2013 was approved by TOC on February 15, 2013.
Has the oversight agency reviewed and approved the grantee’s Security Plan or SEPP as per Part 659.21?	Y	WMATA SEPP approved on April 23, 2012.

Did the oversight agency participate in the last Quarterly Program Review Meeting?	Y	TOC and/or its contractor (TRA) routinely attend the quarterly meetings, including the most recent on September 11, 2013.
Has the grantee submitted its safety certification plan to the oversight agency?	N	
Has the grantee implemented security directives issues by the Department Homeland Security, Transportation Security Administration?	N	WMATA will be operator.

<b>SSMP Monitoring</b>	<b>Y/N</b>	<b>Notes/Status</b>
Is the SSMP project-specific, clearly demonstrating the scope of safety and security activities for this project?	Y	
Grantee reviews the SSMP and related project plans to determine if updates are necessary?	Y	
Does the grantee implement a process through which the Designated Function (DF) for Safety and DF for Security are integrated into the overall project management team? Please specify.	N	WMATA will be operator.
Does the grantee maintain a regularly scheduled report on the status of safety and security activities?	N	WMATA will be operator.
Has the grantee established staffing requirements, procedures and authority for safety and security activities throughout all project phases?	N	WMATA will be operator.
Does the grantee update the safety and security responsibility matrix/organizational chart as necessary?	N	WMATA will be operator.
Has the grantee allocated sufficient resources to oversee or carry out safety and security activities?	N	WMATA will be operator.
Has the grantee developed hazard and vulnerability analysis techniques, including specific types of analysis to be performed during different project phases?	N	To be developed.
Does the grantee implement regularly scheduled meetings to track to resolution any identified hazards and/or vulnerabilities?	N	To be developed.
Does the grantee monitor the progress of safety and security activities throughout all project phases? Please describe briefly.	Y	
Does the grantee ensure the conduct of preliminary hazard and vulnerability analyses? Please specify analyses conducted.	N	
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?	N	In early D-B stage.
Has the grantee identified safety and security critical tests to be performed prior to passenger operations?	N	
Has the grantee verified conformance with safety and security requirements during testing, inspection and start-up phases?	N	
Does the grantee evaluated change orders, design waivers, or test variances for potential hazards and /or vulnerabilities?	N	
Has the grantee ensured the performance of safety and security analyses for proposed work-arounds?	N	
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	
Has the grantee issued final safety and security certification?	N	
Has the grantee issued the final safety and security verification report?	N	

<b>Construction Safety</b>	<b>Y/N</b>	<b>Notes/Status</b>
Does the grantee have a documented/implemented Contractor Safety Program with which it expects contractors to comply?	N	
Does the grantee's contractor(s) have a documented company-wide safety and security program plan?	N	
Does the grantee's contractor(s) have a site-specific safety and security program plan?	N	
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	

Does the grantee conduct site audits of the contractor's performance versus required safety/security procedures?	Y	
--	---	--

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



[Redacted]

[Redacted]