

**Fourth Amendment to the  
Cooperative Agreement between the  
Washington Metropolitan Area Transit Authority and  
the Metropolitan Washington Airports Authority for  
the Dulles Corridor Metrorail Project**

This Fourth Amendment to the Cooperative Agreement (“Agreement”) between the Washington Metropolitan Area Transit Authority and the Metropolitan Washington Airports Authority for the Dulles Corridor Metrorail Project (“Fourth Amendment”) is entered into this 23 day of April, 2014, by the METROPOLITAN WASHINGTON AIRPORTS AUTHORITY (“MWAA”) and the WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY (“WMATA”) (collectively the “Parties”).

**Recitals**

1. MWAA and WMATA entered into a First Amendment to the Agreement on July 26, 2010, to address changes to the Agreement regarding the contribution to the cost of design of the railcars and other matters.
2. MWAA and WMATA entered into a Second Amendment to the Agreement in 2011, to address Federal Requirements and other matters.
3. MWAA and WMATA entered into a Third Amendment to the Agreement on January 10, 2014, to change the insurance requirements.
4. The Parties now wish to amend the Agreement to specify a series of Work Activities (as defined below) that must be completed by MWAA in order for WMATA to declare ORD (as defined below), to specify a series of Work Activities that may be completed by MWAA after ORD but must be completed prior to WMATA Acceptance of the Project (as defined below) in order for such acceptance to occur, to specify the Work Activities that may be completed by MWAA following WMATA Acceptance, and to define certain reimbursement, funding and insurance requirements to be met by MWAA.
5. In this Fourth Amendment, the following terms have the following meanings: “Project” shall mean Phase 1 of the Dulles Corridor Metrorail Project; “ORD” shall mean a date, which is anticipated to be approximately three months prior to WMATA Acceptance, on which WMATA has determined that the Project has sufficiently satisfied WMATA operational readiness requirements to enable WMATA to accept care, custody and control of the Project; “WMATA Acceptance” shall have the meaning given the term in the Agreement; “Work Activities” shall mean the tasks, decisions, actions and other activities undertaken by MWAA, or by others at the direction of MWAA, as part of the effort to finalize construction of the Project; and “Eligible Costs” shall have the meaning given the term in the Agreement.

NOW, THEREFORE, MWAA and WMATA hereby agree to amend the Agreement as follows:

## **I. SAFETY**

The Parties acknowledge that nothing contained in this Fourth Amendment will compromise or reduce the safety requirements for the Project. MWAA acknowledges and agrees that WMATA will not declare ORD until the Project complies with all applicable safety requirements and the activities listed in Attachment 1 have been completed, and that WMATA will not accept the Project into the Adopted Regional System until WMATA has certified it to be safe for revenue service and all activities listed in Attachment 2 have been completed.

## **II. WORK ACTIVITIES PRIOR TO OPERATIONAL READINESS DATE**

A. Pursuant to the Agreement, WMATA, as the Project's "Intended Future Owner and Operator," is to "determine the ORD." (Agreement, page 34). MWAA acknowledges and agrees that, in order for WMATA to make this determination and to declare ORD, the Work Activities identified in Attachment 1 ("Identification of Work Activities to be Completed Prior to ORD") must be completed and, pursuant to Section II. B., WMATA must concur that they have been completed.

B. As the individual Work Activities identified in Attachment 1 are completed, MWAA will submit documentation to WMATA that demonstrates their completion. Within five (5) calendar days of its receipt of such documentation, WMATA will either concur that the Work Activity or Activities addressed in the documentation have been completed or provide MWAA a written explanation as to why the submitted documentation is unsatisfactory. MWAA recognizes that a failure to address any such explanation and to resubmit the required documentation may delay WMATA's declaration of ORD.

C. In addition to the Work Activities set forth in Attachment 1, WMATA must have reviewed and approved the form of the Alstom Contract, which is referenced in Attachment 1, paragraph 4(d), for the replacement of the Remote Terminal Units (RTUs) on the Project; provided, that WMATA agrees it will not unreasonably withhold its approval of the contract form. At a minimum, the Alstom Contract must provide for the completion of performance by no later than August 31, 2015, name WMATA as a third-party beneficiary of the contract, and include a retainage provision whereby MWAA will retain no less than ten (10%) percent retainage from the contract price to ensure that Alstom timely completes the contract work. MWAA agrees that no retainage will be released to Alstom without WMATA's prior written approval which shall not be unreasonably withheld.

D. WMATA agrees that, upon its concurrence that all Work Activities identified in Attachment 1 have been completed, it will declare ORD and accept care, custody and control of the Project.

### **III. WORK ACTIVITIES AFTER ORD AND PRIOR TO WMATA ACCEPTANCE**

A. Attachment 2 identifies certain Work Activities that shall be completed by MWAA in the period between WMATA's declaration of ORD and WMATA Acceptance. MWAA acknowledges and agrees that WMATA may at its discretion decline to accept the Project into the Adopted Regional System if all of the Work Activities identified in Attachment 2 have not been completed and, pursuant to Section III. B., WMATA has not concurred that all such activities have been completed.

B. As the Work Activities identified in Attachment 2 are completed, MWAA will submit the necessary documentation to WMATA. Within five (5) calendar days of its receipt of such documentation, WMATA will either concur that the Work Activity or Activities addressed in the documentation have been accomplished or provide MWAA a written explanation as to why the submitted documentation is unsatisfactory. MWAA recognizes that its failure to address any such explanations and to resubmit the required documentation may delay WMATA Acceptance.

C. MWAA acknowledges that the completion of the Work Activities identified in Attachment 2 does not establish that all of the conditions for WMATA Acceptance set out in Article 6 of the Agreement have been satisfied, and further acknowledges that all such conditions must be satisfied in order for WMATA Acceptance to occur.

### **IV. WORK ACTIVITIES AFTER WMATA ACCEPTANCE**

A. Attachment 3 identifies the Work Activities that may be completed by MWAA following WMATA Acceptance. MWAA agrees to cause the Work Activities identified in Attachment 3 to be completed by the dates set forth in the attachment.

B, WMATA reserves the right to complete any of the Attachment 3 Work Activities that are not completed by the dates set out in the attachment, and MWAA agrees to reimburse WMATA for its costs in undertaking such work, as provided in Section V. F. below.

### **V. MWAA REIMBURSEMENTS AND FUNDING**

A. MWAA agrees to reimburse WMATA for the Eligible Costs it has incurred in providing Technical Advisory Services (as defined in the Agreement) as a direct result of the Project's Substantial Completion not being achieved on September 9, 2013. Such reimbursement shall be pursuant to Article 4, Section 1. C of the Agreement.

B. MWAA agrees to fund the Eligible Costs WMATA will incur arising from its assignment of up to two employees, twenty-four hours a day and seven days a week, to monitor the Horton Remote Terminal Units (RTUs), as referenced in Attachment 1, paragraph 4(b), during the period between WMATA Acceptance and the date on which WMATA has determined to discontinue the operation of these RTUs. MWAA will pay these costs on a quarterly basis in advance, as provided in Article 4, Section 1.D of the Agreement. WMATA agrees to provide an estimate of these costs to MWAA prior to WMATA Acceptance.

C. MWAA agrees to fund the Eligible Costs WMATA will incur in managing the contract with Alstom Signaling, Inc., as referenced in Attachment 3, paragraph 1. Such funding shall be pursuant to Article 4, Section 1.D of the Agreement. WMATA agrees to provide an estimate of these costs to MWAA prior to WMATA Acceptance.

D. MWAA agrees to fund the Eligible Costs WMATA will incur in providing air conditioning to the Project escalator machine rooms, as referenced in Attachment 1, paragraph 5. Such funding shall be pursuant to Article 4, Section 1.D of the Agreement. WMATA agrees to provide an estimate of these costs to MWAA within 30 days of WMATA Acceptance.

E. MWAA agrees to fund the Eligible Costs WMATA will incur in obtaining the fabrication of, and in installing, the aerial guideway gate access ladders, as referenced in Attachment 2, paragraph 27. Such funding shall be pursuant to Article 4, Section 1.D of the Agreement. WMATA agrees to provide an estimate of these costs to MWAA at the time it determines to proceed with the fabrication of the ladders.

F. In the event that MWAA fails to complete any Work Activities identified in Attachment 3 by the dates set out in the attachment, MWAA agrees to reimburse WMATA for the Eligible Costs it will incur in completing those Work Activities.

## **VI. INSURANCE**

MWAA agrees that the insurance coverages described in Article 7, Section 4 of the Agreement will be extended from the Project's Substantial Completion to WMATA Acceptance.

## **VII. CONTINUING EFFECT**

This Fourth Amendment supplements, and amends certain terms and conditions of, the Agreement. All terms and conditions of the Agreement not amended or affected by this Amendment shall remain in full force and effect. Should there be any conflict between the terms and conditions in this Fourth Amendment and of the Agreement, First Amendment, Second Amendment or Third Amendment, the terms and conditions of this Fourth Amendment shall control.

## **VIII. EXECUTION IN MULTIPLE COUNTERPARTS**

This Fourth Amendment may be executed in multiple identical counterparts, each of which shall constitute an original and all of which shall constitute, collectively, one agreement.

IN WITNESS WHEREOF, MWAA and WMATA have executed this Fourth Amendment as of the date stated in the first paragraph of the amendment:

WITNESS:

Barbara Richardson

WASHINGTON METROPOLITAN AREA  
TRANSIT AUTHORITY

Richard Sarles  
Richard Sarles  
General Manager/Chief Executive Officer

WITNESS:

Barbara Barnes

METROPOLITAN WASHINGTON  
AIRPORTS AUTHORITY

John E. Potter  
John E. Potter  
President and Chief Executive Officer

**Attachment 1 – Performance requirements for the completion of activities required prior to Operational Readiness Date (ORD)**

1. Priority punchlist Items
  - a. The following priority punchlist work shall have been completed and verified by WMATA, with any exceptions noted and agreed to by WMATA:
    - i. Dulles-15409 – locks have been provided on rollup doors at Tysons Central 123 Station
    - ii. Dulles-06650 – red line waterproofing has been installed at the Wiehle Avenue Station
    - iii. Dulles-01787 – the station roof drain at the Wiehle Avenue Station has been connected to the track drainage system
    - iv. Dulles-02962 – the low ballast between ties at N2 563+00 has been addressed
    - v. Dulles-13648 – the issue relating to the clearance on the safety walk between the East Vent Structure and the Tysons 123 station has been addressed
    - vi. Dulles-14707 – the issue relating to the absence of UL labels on dampers has been addressed
    - vii. Dulles-15585 and 155588 – the rail head cant defects at N1 690+00 to 770+00 have been addressed
    - viii. Dulles-15591 – the incorrect superelevation displays from Sta 699+00 to 765+00 have been addressed
    - ix. Dulles-15697 through 15700 – FIA/PAS system approvals from DGS at the four stations in Tysons Corner have been obtained
  - b. Site Specific Work Plans: MWAA (i) shall have submitted to WMATA Site Specific Work Plans (SSWPs) for the work in Attachments 2 and 3 that is to be performed by Dulles Transit Partners (DTP) following ORD, which plans shall include a schedule for the completion of the work to be performed within the limits of the “revenue system,” as defined in the Cooperative Agreement, and (ii) shall have obtained WMATA’s approval of all such SSWPs, unless the time for any such approval is extended by WMATA
  - c. For each of the four Tysons Corner stations, MWAA has established, as a condition to obtaining Certificates of Occupancy, a plan to solve the fire intrusion alarm system issues. (See Attachment 2, paragraph 12, for MWAA’s implementation of the plan)
2. Safety and Security Certification – MWAA shall have accepted DTP’s Safety Certification documentation.
3. System Performance Demonstration (SPD) – MWAA shall have performed the following activities:
  - a. Autodoors, station overruns and skip stops discrepancies have been resolved
  - b. Loss of speed readouts (LSRO) – the interlocking software modifications and the track circuit amplitude adjustments designed to address the “Loss of Speed Readouts” shall have been completed and tested, and all related testing shall have been successfully concluded

- c. Bobbing track circuits: short term – four blocking capacitors shall have been installed to the track circuit at K-98 to address on a short-term basis the interlocking bobbing track circuit issue, and subsequent dynamic testing shall have shown that no bobbing circuits were observed at that location; all MMS panel issues at K-98 shall have been resolved
  - d. Bobbing track circuits: long term – as a permanent solution to address bobbing track circuits, MWAA shall have directed the Contractor to convert the track circuits at K-98, N-91 and N-06 from audio frequency to AC single rail power frequency track circuits
4. Horton Remote Terminal Units (RTUs) reliability improvements
  - a. MWAA has demonstrated acceptable improvements in the RTU reliability and availability
  - b. MWAA shall have agreed to fully reimburse all eligible costs incurred by WMATA to mitigate and address RTU downtime. (See Section V. B. of the Fourth Amendment)
  - c. WMATA shall have accepted the Scope of Work to replace the RTUs and the contract complies with Section II. C. of the Fourth Amendment
  - d. MWAA shall have obtained approval from its Board to proceed with a sole source RTU replacement contract with Alstom Signaling Inc. at the Project's expense
5. Escalator machine room temperature – MWAA shall have agreed to fund all eligible expenses incurred by WMATA to air condition all the escalator machine rooms not currently air conditioned (See Section V. D. of the Fourth Amendment)
6. Ceiling intersection guard for escalators – MWAA shall have completed and verified this work.
7. Reclosure of the traction power gap breaker – MWAA shall have tested and validated proposed solution at one location (TPSS7) and WMATA will have accepted the solution for its implementation in the rest of the system
8. Track tight gauge – MWAA has satisfied WMATA's requirements stated in letter WMATA-371 and field work has been completed and verified as acceptable by WMATA
9. Heat tape testing – MWAA shall have successfully completed all heat tape testing and WMATA shall have verified that the work is acceptable
10. Pavilion entrances work – MWAA shall have completed the temporary enhancement work at the entrances of the pavilions (See Attachment 3, paragraph 5 for permanent work)
11. Certificates of Occupancy (CO) – MWAA shall have provided to WMATA a Certificate of Occupancy or Temporary Certificate of Occupancy (TCO) issued by the Virginia Department of General Services (DGS) or Fairfax County for each Project facility and structure requiring an occupancy certificate. In the case of Temporary Certificates of Occupancy, MWAA shall have provided WMATA with a detailed description of the TCO conditions
12. Elevator Piston Inspection – MWAA shall have inspected all elevators to confirm that there are no additional oil leaks or issues
13. To the extent not already provided in the items above, MWAA shall have provided a schedule to WMATA for the completion of the Work Activities listed in Attachment 2

**Attachment 2 – Performance requirements for the completion of activities required prior to WMATA Acceptance**

1. Punchlist –
  - a. MWAA shall have caused all outstanding items on the punchlist relating to transit-related facilities (as defined in the Cooperative Agreement) to be completed, except those items that WMATA has agreed may be completed following WMATA Acceptance
  - b. MWAA shall have provided a schedule for the completion following Acceptance of all outstanding punchlist items outside the limits of the revenue system and for the completion of the Work Activities in Attachment 3
2. Safety and Security Certification –
  - a. MWAA shall have provided to WMATA safety certification documentation demonstrating that all open SCIL items have been closed
  - b. MWAA shall have provided to WMATA documentation demonstrating that all open hazards and vulnerabilities contained in the open items list have been closed or mitigated
3. Bobbing track circuit –
  - a. MWAA shall have installed two blocking capacitors to the track circuit at N-91 and four to the track circuit at N-06 to address on a short-term basis the interlocking bobbing track circuit issue, and subsequent dynamic testing shall have shown that no bobbing circuits were observed at those locations
  - b. MWAA shall have executed the design and installation contract to implement the permanent solution described in Attachment 3, paragraph 7
4. Horton RTU reliability improvements – MWAA has executed the RTU replacement contract with Alstom in conformance with the requirements of Section II. C. of the Fourth Amendment within 60 days of ORD
5. Traction Power issues resolved to WMATA's satisfaction –
  - a. Reclosure of the traction power gap breaker – MWAA shall have implemented and successfully tested and verified the solution for the reclosure of the traction power gap breaker at all locations other than TPSS7 and the work has been accepted by WMATA
  - b. "No load voltage" – MWAA shall have fixed the "no load voltage" to not exceed 780 v per WMATA Design Criteria
  - c. Transformer Taps – MWAA shall have provided the right tap on the Rectifier Transformers to meet the specification requirements and changed the transformer tap to give the correct DC output voltage on no load
  - d. Cable shield – MWAA shall have resolved the cable shield monitoring variation in the resistance of the cables by bringing within tolerance
  - e. Relay Coordination Study – WMATA shall have accepted the relay coordination study that MWAA has delivered to it
  - f. The West Falls Church Yard Panel (WFCY) – MWAA shall have delivered the WFCY mimic panel to WMATA



6. Certificates of Occupancy – MWAA shall have obtained and provided a copy to WMATA of a final Certificate of Occupancy for each facility or structure as to which a Temporary Certificate of Occupancy had been issued on or before ORD
7. Traction Power RTUs – MWAA shall have developed a solution, which is acceptable to WMATA, to the “TP RTU communications issue” referenced in the attachment to letter WMATA 334 (See Attachment 3, paragraph 2)
8. Elevator/Escalator maintenance contract – MWAA has executed the contract option available under the DTP-Kone contract which provides two years of elevator/escalator maintenance service to WMATA; this contract will be assigned to WMATA prior to WMATA Acceptance
9. K-98 fence and Intrusion Detection Warning (IDW) – MWAA shall have completed and verified the installation of permanent fencing, including necessary modifications to the IDW system at the junction of the Orange (K Line) and the Silver (N Line)
10. Tysons Corner Station Elevator #4 – MWAA shall have completed the elevator shaft and piston replacement at Tysons Corner Station
11. Expansion joints – MWAA shall have completed the repair of all expansion joints at pedestrian bridges and stations
12. Fire Intrusion Alarm (FIA)/PAS Speaker replacement – MWAA shall have completed the installation and testing of all replacement FIA speakers at the stations to meet the DGS certification requirements; the rollover to Verizon line has been tested; and integrated testing of the FIA system has been completed at all locations to demonstrate it performs according to the contract requirements
13. Painting/grounding of tunnel handrail – MWAA shall have completed the painting/grounding of the handrail in the Route 7-123 tunnel and verified this work
14. Automatic Train Control (ATC) vital relays recertification – MWAA shall have recertified all ATC relays within the 120-day period running from the 60<sup>th</sup> day prior to declaring Substantial Completion to the 60<sup>th</sup> day following such declaration
15. Ponding at stations – MWAA shall have corrected the ponding at all stations, as identified in the current punchlist
16. Leaking at stations – MWAA shall have fixed the leaks at all stations, as identified in the current punchlist
17. Radio Coverage – MWAA shall have provided radio coverage at all stations, wayside facilities, Route 7-123 tunnel, WFCY yard lead, and sound cover box
18. Leaky Coaxial Cable in Tunnel – MWAA shall have completed replacement of the Route 7-123 tunnel non-compliant radiax/coaxial cable in a manner that satisfies all requirements of the Virginia Department of General Services and WMATA
19. Cable shrouds – MWAA shall have completed and verified this work, as identified in the current punchlist
20. Access ladders – MWAA shall have completed the installation of all required access ladders and the construction of pull off areas along the Project’s alignment
21. Transfer of assets to WMATA – MWAA shall have transferred to WMATA the facilities, structures and other property making up the completed Project in accordance with any agreed upon procedures between MWAA, WMATA and the Federal Transit Administration

22. ATC ground detectors – MWAA shall have replaced all (13) ground detectors identified to be replaced on letter WMATA-286 with new equipment
23. Emergency generator receptacles – MWAA shall have replaced the receptacles at the Fisher Avenue TPSS and at all Tie Breaker Stations with 100A receptacles (Model #AR1041), and provided two adapters for use at the remaining 6 TPSS locations as detailed in WMATA-374
24. WFCY yard tower emergency switch – MWAA shall have installed and tested the switch
25. Derailer #13 at Wiehle Avenue – MWAA shall have completed the logic change associated with the reverse operations of this switch
26. Spare parts – MWAA shall have delivered all spare parts as noted in the master spare list to the WMATA warehouse and as verified by WMATA
27. Aerial guideway access gate ladders – MWAA shall have provided Professional Engineer stamped detail and have agreed to fund all eligible costs incurred by WMATA to fabricate and install these ladders (see Section V. E. of the Fourth Amendment)
28. Transdyne fiber optic cable – MWAA shall have retested the fiber optic cable and WMATA shall have approved the test
29. O&M-related deliverables – MWAA shall have delivered to WMATA the special tools, operations and maintenance manuals, and other property necessary to WMATA's operation and maintenance of the completed Project (e.g., locks, keys), as provided in Article 6, Condition 5 of the Cooperative Agreement. In the event WMATA believes that property necessary for its operation and maintenance activities has not been delivered, it will notify MWAA, and the parties will in good faith address whether the property is within the scope of Condition 5. If it is mutually determined that the property falls within the condition's scope, MWAA will make its best effort to deliver the property to WMATA within 30 days after notification by WMATA.
30. Document deliverables – MWAA shall have delivered to WMATA the following documentation required to satisfy the requirements of the Rail Activation Plan:
  - a. Final test reports for all the Project systems, including but not limited to traction power, automatic train control, communications, auxiliary power, System Performance Demonstration, fire and intrusion alarm system, public address system, drainage system flow and sump pump operations, domestic water and sewage ejector systems, flow test for fire protection, track drainage reports and videos
  - b. Final hard copies of O&M manuals, including updates showing late changes to fire alarm and communications systems
  - c. Completed compliance verification matrix and all referenced documents
  - d. All as-built documents
  - e. All warranty documents, including roofing warranties on all facilities

**Attachment 3 – Activities extending beyond WMATA Acceptance**

1. Alstom contract – MWAA shall have designated WMATA as the manager of this contract (see Attachment 2, paragraph 4b) by August 15, 2014
2. Traction power RTUs – MWAA shall have implemented the solution, referenced in Attachment 2, paragraph 7, to the traction power RTU communications issue by September 30, 2014
3. Art in transit – MWAA shall award one or more contracts for the installation of art at the five stations and shall have completed all installations by June 30, 2015
4. Punchlist – MWAA shall have completed the remaining punchlist items by the 90<sup>th</sup> day following WMATA Acceptance
5. Pavilion entrances work – MWAA shall have completed the permanent enhancement work at the entrances of the pavilions by August 31, 2014
6. Derailer #13 at Wiehle Avenue – MWAA shall have delivered to WMATA, by September 30, 2014, the point detector rod for installation at this location
7. Bobbing track circuits – MWAA shall have completed the implementation of the permanent solution of converting the track circuits at K-98, N-91 and N-06 from audio frequency to AC single rail power frequency track circuits by December 15, 2014 (see Attachment 2, paragraph 3b), and subsequent dynamic testing shall have shown that no bobbing on the K-98 or N-line track circuits was observed