Metropolitan Washington
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METROPOLITAN WASHINGTON AIRPORTS AUTHORITY

December 1, 2016

Honorable Emmett W. Hanger, Jr.
Co-Chair Senate Finance Committee
General Assembly Building, Room 326
Capitol Square
Richmond, VA 23219

Honorable Thomas K. Norment, Jr.
Co-Chair, Senate Finance Committee
General Assembly Building, Room 626
Capitol Square
Richmond, VA 23219

Honorable Chris S. Jones
Chairman, House Appropriations Committee
General Assembly Building, Room 503
Capitol Square
Richmond, VA 23219

Aubrey L. Layne, Jr.
Virginia Secretary of Transportation
Patrick Henry Building
1111 E. Broad St., 3rd Floor
Richmond, VA 23219

Dear Senators Hanger and Norment, Delegate Jones, and Secretary Layne:

As you know, the Appropriation Act for the 2016-2018 biennium ("2016-2018 Appropriation Act"), chapter 780 of the 2016 Acts of Assembly, in paragraph M of Item 436, conditionally makes available to the Metropolitan Washington Airports Authority ("MWAA") $25,000,000 of Commonwealth funding in the second half of the Commonwealth's fiscal year 2017 and $25,000,000 in the Commonwealth's fiscal year 2018 (jointly, "Commonwealth Funding") for the sole purpose of reducing the airline cost per enplanement at Washington Dulles International Airport ("Dulles Airport" or "Dulles") in order to help attract new domestic and international airlines and retain existing air carriers. This letter is to update you on the status of the three conditions to MWAA's receipt of Commonwealth Funding that are set out in the 2016-2018 Appropriation Act and, in addition, to provide the first of the two annual reports that MWAA is required by the Act to submit to you.

Conditions to Commonwealth Funding

Paragraph M of Item 436 sets out three conditions that must be satisfied before the release to MWAA of any Commonwealth Funding. First, under paragraph M.1, no funds may be released unless MWAA "has entered into an agreement with one or more airlines currently operating at Washington Dulles International Airport which ensures the retention of a domestic airline hub service at the airport for at least seven years beyond calendar year 2017." This condition was satisfied in September of this year when MWAA and United Airlines, a domestic airline providing hub service at Dulles Airport, executed an amendment to United's current Airport Use Agreement and Premises Lease for Dulles which extended the term of that agreement for seven years, from December 31, 2017, to and through December 31, 2024.[1]

[1] This agreement ("Use and Lease Agreement") sets out the rights and obligations of airlines operating at Dulles Airport, including a commitment to lease space and operate at the airport throughout the term of

The second condition to the release of Commonwealth Funding is set out in paragraph M.2 of Item 436, and requires that the Secretary of Transportation "certify in writing to the Governor and the General Assembly that provision of the funding authorized under this item are in the public interest, that the funds will be used to supplement not supplant funds otherwise available to [MWAA], and that [MWAA] has set forth an attainable plan for long-term cost reductions" at Dulles Airport. Although this certification has yet to be given, MWAA is hopeful it will occur later this month.

While the "public interest" element of the Secretary's certification lies entirely in his province, MWAA has taken steps to assist the Secretary in making this certification as to the other two elements of this condition – i.e., (i) that the Commonwealth Funding will be used to supplement not supplant funds otherwise available to MWAA, and (ii) that MWAA has set out an attainable plan for long-term cost reductions at Dulles Airport. MWAA and the Virginia Department of Transportation ("VDOT") are working to prepare the agreement which is required by the third condition to Commonwealth Funding (addressed in the following paragraph). In the parties' draft agreement, MWAA states its commitment and sets out its obligation to use all Commonwealth Funding "to supplement not supplant" funds that are otherwise available to MWAA for use at Dulles Airport. In addition, MWAA has prepared a long-range plan for Dulles Airport ("Long-Range Plan" or "Plan") which is designed to provide for the long-term financial viability of the airport and for continued lower levels of airline cost per enplanement at the airport following the end of the 2016-2018 biennium, and which includes, among other features, "long-term cost reductions" at Dulles, as required by the second condition to the release of Commonwealth Funding.[2] MWAA believes that its commitment and obligation in the final agreement between itself and VDOT to use all Commonwealth Funding to supplement not supplant otherwise available funds and the Long-Range Plan it has prepared will assist the Secretary in making the certification required by paragraph M.2 of Item 436.

The third condition to the release of Commonwealth Funding is set out in paragraph M.2.a of Item 436. Under this condition, no Commonwealth funding may be made available to MWAA unless VDOT and MWAA have entered an agreement which:

> (i) identifies to [VDOT] future efforts of [MWAA] to reduce airline cost per enplanement at [Dulles] using financing efficiency savings, available funds and future revenues in an amount that meets or exceeds the amount of the appropriations provided in this section over the course of the agreement through calendar year 2024,

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the agreement, and the corresponding rights and obligations of MWAA, including a commitment to provide the facilities necessary for the airlines' operations during the term of the agreement.

[2] The MWAA Long-Range Plan is entitled "Metropolitan Washington Airports Authority Long-Range Plan for the Financial Viability of Washington Dulles International Airport and Continued Lower Levels of Airline Cost Per Enplanement at the Airport Beyond the Virginia 2016-2018 Biennium," and is proposed to be an exhibit to the MWAA-VDOT agreement required by the third condition to the release of Commonwealth Funding. A copy of the Long-Range Plan is enclosed with this letter.

> (ii) provides [VDOT] with full access to the financial records of [MWAA] recognizing such financial information will be considered confidential and proprietary and will only be used to verify targets for cost per enplanement reductions, and
>
> (iii) sets forth a long range plan for [the] financial viability of [Dulles Airport] and continued lower levels of cost per enplanement beyond the fiscal year 2016-2018 biennium without additional state support beyond the amounts provided pursuant to § 58.1-538 [sic], Virginia Code.

As noted, MWAA and VDOT are working on an agreement which will address, among other things, these three requirements in paragraph M.2.a of Item 436. The requirement in subparagraph (ii) above will be set out in the agreement as an obligation of MWAA. The requirements in subparagraphs (i) and (iii) will be addressed in the MWAA Long-Range Plan which will be an exhibit to the agreement. MWAA is hopeful that this agreement with VDOT will be finalized later this month.

Report to General Assembly and Secretary of Transportation

In addition to these three conditions to the release of Commonwealth Funding, paragraph M.3 of Item 436 requires MWAA on two occasions – first, no later than December 1, 2016, and, second, no later December 1, 2017 – to report to the Chairmen of the Senate Finance and House Appropriations Committees and the Secretary of Transportation on three specific matters. This letter, as earlier noted, represents the first of these two MWAA reports.

Each of the three matters specified in paragraph M.3 of Item 436 is identified below and immediately following each is MWAA's response to the matter.[3]

A. MWAA is to "report . . . on the actual and forecasted changes to the cost per enplanement at the Washington Dulles International Airport over the prior year, what portion of the reduction is attributable to state support, what portion [is] attributable to cost reduction measures implemented by [MWAA] and what portion is attributable to increased passenger traffic at the Airports." Item 436, paragraph M.3.

   MWAA Response
   The actual airline cost per enplanement at Dulles Airport in MWAA's fiscal year 2015 (see note 3) was \$23.67. The currently forecasted cost per enplanement at Dulles in fiscal year 2016 is \$20.75.

[3] It should be noted that MWAA's fiscal and financial reporting year is the calendar year, unlike the Commonwealth's fiscal and financial reporting year which runs from July 1 through June 30. Thus, all information provided for a particular "year" or on an "annual" basis in this letter report, as well as in MWAA's Long-Range Plan, relates to a calendar year running from January 1 through December 31.

None of this reduction in the Dulles cost per enplanement is attributable to state support. None of the Commonwealth Funding was available to MWAA in 2016. While MWAA received approximately $2 million in funding in 2015 and 2016 from the Commonwealth Airport Fund under Va. Code § 58.1-638A.3 for use at Dulles Airport, this funding remained relatively constant in these two years and, therefore, did not play a role in the cost per enplanement reduction at Dulles between the years.

The portion of this cost per enplanement reduction that is attributable to cost reduction measures taken by MWAA is projected to be approximately $0.14. See Exhibit A (a letter report from MWAA's financial feasibility consultant, DKMG Consulting, LLC ("DKMG Report")) to enclosed MWAA Long-Range Plan, pages 5-6.

None of the reduction in the Dulles cost per enplanement between 2015 and 2016 is attributable in a direct and meaningful way to an increase in passenger traffic since the passenger increase in 2016 was less than 1 percent. See Long-Range Plan, page 5, and DKMG Report, page 3, note 1, page 5 and attached Table 3.

B. MWAA is to "report [on] the additional measures taken by [MWAA] to reduce the airline cost per enplanement including, but not limited to, an estimate of revenues that could be generated by development or disposal of property owned by [MWAA] as a means to further reduce long term cost per enplanement." Item 436, paragraph M.3.

<u>MWAA Response</u>

(a) <u>Additional measures taken to reduce cost per enplanement in 2016.</u> In addition to the cost reductions addressed above, two other measures played a significant role in reducing the Dulles cost per enplanement between the 2015 and 2016. One involves MWAA's use of its unrestricted cash to provide rate abatements to airlines operating at Dulles. In 2016, MWAA has contributed $7 million toward such abatements, and this is estimated to be responsible for a reduction in the projected 2016 cost per enplanement at Dulles of approximately $0.65. See DKMG Report, pages 5-6.

The other important factor that has contributed to the reduced cost per enplanement that is forecasted for Dulles in 2016 is the increase in the airlines' share of the Net Remaining Revenue ("NRR") generated at Dulles in 2015. Under the Use and Lease Agreement at Dulles, the airlines' share of NRR generated at the airport in any year is carried forward into the following where it is used to offset airline costs and, thereby, to reduce the airline cost per enplanement in that year. In 2015, the airlines' share of Dulles NRR was $30.5 million higher than their NRR share in 2014 largely due to increases in non-airlines revenues in 2015. This increased share of 2015 NRR resulted in a reduction of airline costs in 2016 which translated into a reduction of $2.84 in the Dulles cost per enplanement. See DKMG Report, pages 5-6.

Offsetting the measures and factors which have caused the cost per enplanement projected for Dulles in 2016 to be less than the 2015 cost per enplanement is the *increase* in 2016 debt service costs that have been assigned to airlines operating at Dulles. Airline debt service costs at Dulles increased in 2016 by approximately $8.6 million over airline debt service costs in 2015, and this increase in costs has translated into an increase of $0.71 in the 2016 Dulles cost per enplanement.[4] See DKMG Report, pages 5-6.

Overall, the factors addressed above in paragraph A and this paragraph B have resulted in a net decrease of $2.92 in the Dulles cost per enplanement that is now forecast for 2016 ($20.75) when compared with the actual 2015 cost per enplanement at the airport ($23.67).

(b) Revenues from real estate development. With respect to "an estimate of revenues that could be generated by development or disposal of property owned by [MWAA] as a means to further reduce long term cost per enplanement," MWAA is unable at this point to provide an estimate.

MWAA owns approximately 415 acres of land along the western boundary of Dulles Airport that is not used for or dedicated to airport purposes.[5] In 2014, MWAA established an Office of Real Estate for the purpose of generating revenues from the development of this land, as well as appropriate sites located within property that MWAA leases from the federal government. As to the Dulles land that is owned by MWAA and not dedicated for airport purposes, significant steps have been taken over the past 20 months to identify development alternatives, to analyze and ascertain their feasibility, to preliminarily discuss alternative uses with the Federal Aviation Administration (this land lies within the "airport layout plan" for Dulles Airport and, therefore, its utilization, including for non-airport purposes, is subject to FAA review), and to prepare the environmental analyzes and other documentation required by FAA rules to accompany any formal FAA review of these alternatives under the National Environmental Policy Act. We are hopeful that, in our 2017 report, we will able to inform you of concrete plans for the use of this land that will produce long-term revenues which can be used to help maintain lower levels of cost per enplanement at Dulles.

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[4] This increase in the debt service costs assigned in 2016 to airlines at Dulles has resulted primarily from the substantial completion of the construction in 2016 of a number of debt-funded capital projects benefiting the airlines. Under the Dulles Use and Lease Agreement, at the point the construction of such capital projects is substantially completed, the projects' debt service costs begin to be charged to the airlines; in the course of 2016, many of these projects at Dulles reached substantial completion and, consequently, their debt service costs began to be charged to the airlines. See DKMG Report, page 6.

[5] MWAA also owns another 420 acres of land at Dulles, and this land is dedicated to airport purposes. In addition, MWAA leases approximately 11,000 acres at Dulles from the federal government.

C. MWAA's report is to "include an outline of additional measures to be taken by [MWAA] to further reduce cost per enplanement through calendar year 2024." Item 436, paragraph M.3.

MWAA Response

MWAA's enclosed Long-Range Plan describes a series of "measures" to be taken by MWAA in order to reduce the Dulles cost per enplanement in the period between January 1, 2016, through December 31, 2024.

The Long-Range Plan has six separate components. The Plan describes each of these components, along with the financial impacts the component is projected to have at Dulles Airport in the 2016-through-2024 period. These financial impacts are described in two ways: (i) by projecting the ***amount*** that a Plan component will contribute toward increasing revenues or decreasing costs, and thereby will work toward the reduction of the cost per enplanement at Dulles, in the 2016-through-2024 period (*e.g.*, components in the form of decreased costs, increased revenues, contributions of MWAA-controlled funds, and increases in passenger traffic); and (ii) by projecting the ***impact*** that a Plan component will have in reducing the cost per enplanement at Dulles in the 2016-through-2024 period.

These projected component "amounts" and "impacts," have been determined by MWAA's financial feasibility consultant, DKMG Consulting, LLC. DKMG's projections are contained in the DKMG Report which, as earlier noted, is attached as Exhibit A to the enclosed MWAA Long-Range Plan.

The six components of the Long-Range Plan and the "measures" to be taken under each are as follows.

1. Financing Savings. Two measures are identified under this Plan component, one of which occurred in July of this year.

   (a) 2016 Bond Refunding Savings. In July 2016, MWAA refunded two series of bonds originally issued in 2006 which achieved a reduction in debt service costs assigned to Dulles Airport in the 2016-through-2024 period of approximately $40.9 million. See Long-Range Plan, page 2, and DKMG Report, page 2 and attached Table 1. See also Long-Range Plan, page 2, and DKMG Report, page 3 and attached Table 2, for the impact of this refunding on the Dulles cost per enplanement in the 2016-2019 period.

   (b) Future Bond Refunding Savings. MWAA intends to refund additional outstanding bonds in 2017, 2018 and 2019. These refundings are projected to achieve a reduction in debt service costs at Dulles Airport in the 2016-through-2024 period of approximately $100.3 million. See Long-Range Plan, page 3, and DKMG Report, page 2 and attached Table 1. See also Long-Range Plan, page 3, and DKMG Report, page 2 and attached Table 2, for the impact of these refundings on the Dulles cost per enplanement in the 2019-through-2024 period. Of course, the ultimate savings from these refunding bonds and their impact on the cost per enplanement at Dulles will depend on market conditions at the time they are issued.

2. <u>Contributions of MWAA Unrestricted Cash Funds.</u> Two measure are identified under this Plan component, one of which was partially taken in 2016.

   (a) <u>Use of Unrestricted MWAA Cash for Airline Rate Abatements.</u> In its 2016 and 2017 budgets, MWAA has provided a contribution of its own funds to reduce the costs assigned to airlines operating at Dulles. The contribution in 2016, as noted earlier, is $7 million and in 2017 is $1.5 million. Thus, MWAA is making a total contribution of MWAA cash funds of $8.5 million to help reduce the Dulles cost per enplanement in 2016 and 2017. See Long-Range Plan, page 3, and DKMG Report. page and attached Table 1. See also Long-Range Plan, page 3, and DKMG Report, page 2 and attached Table 2, for the impact of these contributions on the Dulles cost per enplanement in 2016 and 2017.

   (b) <u>Use of Unrestricted MWAA Cash Generated at Reagan National Airport.</u> Under the Use and Lease Agreement at Reagan National Airport, MWAA may use its share of Net Remaining Revenue generated at that airport, up to specified maximum amounts, to reduce costs assigned to airlines operating at Dulles Airport, thereby reducing the Dulles cost per enplanement. During the 2016-through-2024 period, these maximum amounts range from $40 million at the high end and $25 million at the low end. MWAA anticipates its share of NRR at Reagan National Airport in each of the nine years in the 2016-through-2024 period to meet or exceed the maximum amount it may transfer to Dulles. In addition, MWAA intends, in each of these years, to transfer this maximum amount of its share of Reagan National Airport NRR to Dulles Airport to reduce the airline cost per enplanement at Dulles. These transfers of MWAA's share of Reagan National Airport NRR to Dulles Airport in the 2016-through-2024 period will total $270 million (see Long-Range Plan, pages 3-4, and DKMG Report, pages 2-3 and attached Table 1) and will have significant impacts on the annual cost per enplanement at Dulles. See Long-Range Plan, page 4, and DKMG Report, page 3 and attached Table 2.

3. Increases in Revenues

The Long-Range Plan shows that, over the past year, MWAA has increased the non-airline revenues it earns at Dulles by undertaking a number of revenue-enhancing actions, including an expansion of its ground transportation service program, the re-competing and execution of a new advertising concession contract with significantly more favorable financial terms, and the continuation of the refurbishment and upgrade of its terminal concession program. As a result, non-airline revenues at Dulles in 2016 are now projected to be 2.4% higher than the level of such revenues in the 2016 MWAA budget, and these higher 2016 revenues have been carried forward in the 2017 MWAA budget where they have provided a higher baseline for Dulles non-airline revenues in future years. As a result of these actions, increases in non-airline revenues at Dulles are projected to total $55.5 million in the 2016-through-2024 period (see Long-Range Plan, page 4, and DKMG Report, page 3 and attached Table 1) and to produce meaningful reductions in the Dulles cost per enplanement. See Long-Range Plan, page 4, and DKMG Report, page 3 and Table 2.

4: Decreases in Costs (Other than Financing Costs)

The Long-Range Plan shows that MWAA has recently significantly reduced the level of operating expenses that may be incurred at Dulles Airport. As a result, while previous projections of Dulles expenses in 2017 forecasted an increase of 3% over 2016 budgeted expenses, the 2017 MWAA budget provides for an increase of only 0.28%. In addition, actions taken by MWAA during 2016 have reduced operating expenses at Dulles from the level of expenses set out in the 2016 budget; based on actual incurred expenses through October, operating expenses in 2016 at Dulles are projected to be 5.3% lower than the level in the 2016 budget. Moreover, due to these actual expense reductions at Dulles in 2016 and the reductions achieved in the 2017 MWAA budget preparation process, operating expenses at Dulles are now projected to grow in 2018 by only 2.5%, down from the 3% increase earlier projected.

Together, these reductions in operating expenses at Dulles Airport are projected to total $63.3 million in the 2016-through-2024 period (see Long-Range Plan, pages 4-5, and DKMG Report, page 3 and Table 1) and to generate reductions in the Dulles cost per enplanement during the period. See Long-Range Plan, pages 4-5, and DKMG Report, page 3 and Table 2.

5: Commonwealth Funding

The Long-Range Plan reflects MWAA's receipt of $25 million of Commonwealth Funding in 2017 and another $25 million in 2018, which funding is projected to help reduce the cost per enplanement at Dulles in those years. See Long-Range Plan, page 5, and DKMG Report, attached Table 2.

6. Increases in Passenger Traffic

   The Long-Range Plan also show that, based upon MWAA's multiple air service development activities and the projected levels of cost per enplanement in future years at Dulles Airport, annual increases in passenger traffic is projected at the airport using a compound annual growth rate of 2.1%, starting in 2017 and continuing through 2024. As earlier explained, these annual increases in passenger traffic have multiple positive revenue consequences at Dulles which are captured and included in the financial analyses of the Plan components discussed above and which exert downward pressure on the Dulles cost per enplanement. See Long-Range Plan, page 5, and DKMG Report, page 5 and attached Table 3.

Finally, MWAA intends to work diligently in the years ahead to achieve ever further reductions to the Dulles cost per enplanement than those projected under the Long-Range Plan. We are hopeful that, with the collaboration of our airline partners, passenger traffic at Dulles will grow at a rate higher than the 2.1% rate used in projecting passenger increases under the Plan. In this regard, it should be noted that the January 2016 FAA Terminal Area Forecast for Dulles projects passenger growth at a compound annual growth rate of 2.5% in the 2016-through-2014 period. In addition, MWAA believes that our efforts to develop MWAA-owned real property at Dulles will bear fruit in the years ahead, producing new revenues that are not included in the current Long-Range Plan. Making good progress in these two areas will, we believe, lead in future years to lower levels of cost per enplanement at Dulles than are now projected in the Long-Range Plan.

MWAA greatly appreciates the support provided by the General Assembly in the 2016-2018 Appropriation Act, and commits to implementing its Long-Range Plan and taking other steps, if needed, in order to maintain lowered cost per enplanements at Dulles Airport and to continually enhance the competitive position of the airport.

If you have any questions regarding this report, I ask that you contact MWAA's Chief Financial Officer, Andrew Rountree. Mr. Rountree can be reached by phone at (703) 417-8710 or by email at andrew.rountree@mwaa.com.

Sincerely,

John E. Potter
President and Chief Executive Officer

Enclosure

ENCLOSURE

TO

DECEMBER 1, 2016, MWAA LETTER REPORT

TO

CHAIRMEN OF SENATE FINANCE AND HOUSE APPROPRIATIONS COMMITTEES

AND

SECRETARY OF TRANSPORTATION

Metropolitan Washington Airports Authority Long-Range Plan for the Financial Viability of Washington Dulles International Airport and Continued Lower Levels of Airline Cost Per Enplanement at the Airport Beyond the Virginia 2016-2018 Biennium

December 1, 2016

Metropolitan Washington Airports Authority Long-Range Plan
for the Financial Viability of Washington Dulles International Airport and
Continued Lower Levels of Airline Cost Per Enplanement at the Airport
Beyond the Virginia 2016-2018 Biennium

Introduction

The Metropolitan Washington Airports Authority (MWAA) has prepared this long-range plan ("Long-Range Plan" or "Plan") for the financial viability of Washington Dulles International Airport ("Dulles Airport" or "Dulles") and for continued lower levels of airline cost per enplanement at Dulles, pursuant to paragraph M of Item 436 in chapter 780 of the 2016 Virginia Acts of Assembly ("2016-2018 Appropriation Act"). Item 436(M) of the 2016-2018 Appropriation Act[1] conditionally makes available to MWAA $25,000,000 of Commonwealth of Virginia funding in the second half of the Commonwealth's Fiscal Year ("Virginia Fiscal Year") 2017 and $25,000,000 in Virginia Fiscal Year 2018 (jointly, the "Commonwealth Funding") for the purpose of reducing the airline cost per enplanement at Dulles Airport and thereby improving the competitiveness of the airport.

Two conditions to MWAA's receipt of the Commonwealth Funding include the following requirements which pertain to materials MWAA is to prepare that describe the actions and measures it has taken or intends to take in the period from January 1, 2016, through December 31, 2024, to sustain the competitiveness of Dulles Airport:

(1) MWAA is to submit to the Secretary of Transportation "an attainable plan for long-term cost reductions" at Dulles Airport which will be used by the Secretary in providing the certification he is required by Item 436(M)(2) to provide the General Assembly and the Governor; and

(2) MWAA is to submit to the Virginia Department of Transportation ("VDOT"), as part of its agreement with VDOT which is required by Item 436(M)(2)(a), (i) an identification of the "future efforts of the Authority to reduce airline cost per enplanement at [Dulles Airport] using financing efficiency savings, available funds, and future revenues in an amount that meets or exceeds the amount of the [$50 million] appropriation provided in this [paragraph M] over the course of the agreement through calendar year 2024" and, in addition, (ii) "a long-range plan for [the] financial viability of the airport and continued lower levels of cost per enplanement beyond the fiscal year 2016-2018 biennium without additional state support beyond the amounts provided pursuant to § 58.1-[638], Code of Virginia."[2]

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[1] Item 436(M) of the 2016-2018 Appropriation Act, which falls in Part I of the Act, is hereafter referred to simply as Item 436(M) or paragraph M of Item 436.

[2] An additional condition to MWAA's receipt of the Commonwealth Funding, which is set out in Item 436(M)(1), is to "enter[] into an agreement with one or more airlines currently operating at [Dulles Airport] which ensures the retention of a domestic airline hub service at the airport for at least seven years beyond calendar year 2017." MWAA has entered such an agreement with United Airlines, a provider of domestic hub service at Dulles, as well as with other airlines operating at the airport, in the form of an amendment to the

Apart from these conditions to MWAA's receipt of Commonwealth Funding, MWAA is to submit two reports, one no later than December 1, 2016, and another no later than December 1, 2017, to the Chairmen of the House Appropriations and Senate Finance Committees and the Secretary of Transportation, as required by Item 436(M)(3). Among other things, these reports are to provide an "outline of additional measures to be taken by [MWAA] to further reduce cost per enplanement [at Dulles Airport]" in future years through calendar year 2024.

MWAA has prepared this Long-Range Plan to address the two conditions to its receipt of Commonwealth Funding, as described above and set out in paragraphs M(2) and M(2)(a) of Item 436 and, in addition, to be submitted with its report to the General Assembly and Secretary of Transportation under paragraph M(3) of Item 436 as a description of the "additional measures" it intends to take to reduce the cost per enplanement at Dulles through 2024.

The Plan has six components. Each of these components, along with the financial impacts they are projected to have at Dulles Airport in the nine-year 2016-through-2024 period, are described below. These financial impacts are described in two ways: (i) by projecting the ***amount*** that a Plan component will contribute toward increasing revenues or decreasing costs, and thereby will work toward the reduction of the cost per enplanement at Dulles Airport, in the 2016-through-2024 period (*e.g.*, components in the form of decreased costs, increased revenues, contributions of MWAA-controlled funds, and increases in passenger traffic); and (ii) by projecting the ***impact*** that a Plan component will have in reducing the cost per enplanement at Dulles Airport in the 2016-through-2024 period.

These projected component "amounts" and "impacts" have been by determined by MWAA's financial feasibility consultant, DKMG Consulting, LLC ("DKMG"), with input from MWAA staff. DKMG's projections are contained in a letter report prepared by the firm ("DKMG Report") which is attached hereto as Exhibit A. In projecting the amount of cost savings produced by the first component of the Long-Range Plan, Financing Savings, DKMG relied upon assumptions relating to future MWAA refunding issues and estimates of the debt service costs of these bond issues in the 2016-through 2024 period which were made by MWAA's financial advisors, Frasca & Associates ("Frasca"). A memorandum providing these assumptions and estimates ("Frasca Memorandum") is attached hereto as Exhibit B.[3]

Plan Components – Descriptions and Projected Impacts

Component 1: Financing Savings

(a) 2016 Bond Refunding Savings. In July 2016, MWAA refunded two series of bonds originally issued in 2006. This refunding achieved a reduction in debt service costs assigned to Dulles Airport in the 2016-through 2024 period of approximately $40.9 million. See DKMG

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parties' 2015 Airport Use and Lease Agreement which extends the term of that agreement by seven years, from December 31, 2017, through December 31, 2024.

[3] The years for which these financial impact projections are made in this Long-Range Plan and in the DKMG Report are MWAA fiscal years which, unlike Virginia Fiscal Years, are calendar years running from January 1 through December 31.

Report, pages 1-2 and attached Table 1. In addition, this 2016 refunding is projected to reduce the annual per enplanement at Dulles Airport starting in 2017 by an average of $0.31, with reductions ranging from $0.27 to $0.41 a year. See DKMG Report, attached Table 2.

(b) Future Bond Refunding Savings. MWAA intends to refund additional outstanding bonds in 2017, 2018 and 2019. Based on interest rates projected for these refunding bonds and the bonds' projected debt service costs over time (both projections that have been made by Frasca (see the Frasca Memorandum, Exhibit B)), these refundings are projected to achieve a reduction in debt service costs at Dulles Airport in the 2016-through-2024 of approximately $100.3 million, subject of course to market conditions. See DKMG Report, page 2 and attached Table 1. These future refundings are also projected to reduce the annual cost per enplanement at Dulles Airport, starting in a meaningful manner in 2019 and continuing through 2024, by an average of $1.29, with reductions in this six-year period ranging from $1.15 to $1.36 a year. See DKMG Report, page 2 and attached Table 2.

(c) Future "New Money" Bonds and Financing Cost Increases. As noted earlier in note 2, in 2016, the 2015 Airline Use and Lease Agreement for Dulles Airport was amended to extend the agreement's term by seven years through December 31, 2024. The amendment included a series of new capital construction projects to be undertaken at Dulles in the extended seven-year period. The projects include utility upgrades, capacity enhancements to the international arrivals facility, baggage handling improvements, facility changes to accommodate increased additional international service, new domestic gates, and various utility, airfield, road and other airport improvements. The projected cost of these projects is $445.6 million. While MWAA will seek grant funding whenever available for these new projects, the projects will be primarily debt-funded, through "new money" bond issues in 2018, 2020 and 2022, which will increase debt service costs at Dulles. Based on projections by Frasca of the interest rates on these bonds and their resulting debt service over time, these bonds are projected to increase debt service costs at Dulles in the period starting in 2019 and running through 2024 by approximately $63.5 million. See DKMG Report, page 4 and attached Table 1. These future new money bonds are also projected to increase the annual cost per enplanement at Dulles, starting in 2019 and through 2024, by an average of $0.82, with increases ranging from $0.16 to $1.40 a year. See DKMG Report, page 4 and attached Table 2.

(d) Net Financing Savings Effects of Refunding and New Money Bonds. The projected net effects at Dulles Airport in the 2016-through-2024 period of MWAA's 2016 bond refundings, its anticipated future bond refundings, and its future new money bond issues are as follows: (i) total net debt service cost savings of $77.6 million; and (ii) an average annual net cost per enplanement reduction of $0.65 over this nine-year period.

Component 2: Contributions of MWAA Unrestricted Cash Funds

(a) Use of Unrestricted MWAA Cash for Airline Rate Abatements. In its 2016 and 2017 budgets, MWAA has provided a contribution of its own funds to reduce the costs assigned to airlines operating at Dulles Airport. The contribution in 2016 is $7 million and in 2017 is $1.5 million, for a total of contribution of MWAA cash funds of $8.5 million in the 2016-through 2024 period. These contributions are projected to reduce the cost per enplanement at Dulles Airport by $0.65 in 2016 and by $0.14 in 2017. See DKMG Report, page 2 and attached Table 2.

(b) Use of Unrestricted MWAA Cash Generated at Ronald Reagan National Airport (Reagan National Airport). Under the 2015 Airline Use and Lease Agreement, MWAA may use its share of Net Remaining Revenue (NRR) generated at Reagan National Airport, up to specified maximum amounts, to reduce costs assigned to airlines operating at Dulles Airport, thereby reducing the cost per enplanement at Dulles. During the 2016-through-2024 period, these maximum amounts are $40 million in 2016 and 2017, $35 million in 2018, $30 million in 2019, and $25 million in each year from 2020 through 2024. MWAA anticipates its share of NRR at Reagan National Airport in each of the nine years in the 2016-through-2024 period to exceed the maximum amount it may transfer to Dulles. In addition, MWAA intends, in each of these nine years, to transfer this maximum amount of its share of Reagan National Airport NRR to Dulles Airport to reduce the airline cost per enplanement at Dulles.

These transfers of MWAA's share of Reagan National Airport NRR to Dulles Airport in the 2016-through-2024 period will total $270 million, and their projected impact on the annual cost per enplanement at Dulles in this nine-year period will average $2.60, with reductions ranging from $1.97 to $3.72 a year. See DKMG Report, pages 2-3 and attached Tables 1 and 2.

Component 3: Increases in Revenues

Over the past year, MWAA has increased the non-airline revenues it earns at Dulles by undertaking a number of actions, including an expansion of its ground transportation service program, the re-competing and execution of a new advertising concession contract with significantly more favorable financial terms, and the continuation of the refurbishment and upgrade of its terminal concession program. As a result, non-airline revenues at Dulles in 2016 are now projected to be 2.4% higher than the level of such revenues in the 2016 MWAA budget. These higher 2016 revenues at Dulles have been carried forward in the 2017 MWAA budget and have provided a higher baseline for Dulles non-airline revenues, which has increased the projections for such revenues at Dulles in years 2018 through 2024. See DKMG Report, page 3.

These increases in non-aviation revenues at Dulles Airport are projected to total $55.5 million in the 2016-through-2024 period. See DKMG Report, page 3 and attached Table 1. In addition, these revenue increases are projected to reduce the annual cost per enplanement at Dulles in this nine-year period by an average of $0.49, with reductions ranging from $0.44 to $0.75 a year. See DKMG Report, page 3 and attached Table 2.

Component 4: Decreases in Costs (Other than Financing Costs)

In preparing for its 2017 budget, MWAA significantly reduced the level of operating expenses to be incurred at Dulles Airport. As a result, while previous projections of Dulles expenses in 2017 forecasted an increase of 3% over 2016 budgeted expenses, the 2017 MWAA budget provides for an increase of only 0.28%. In addition, actions taken by MWAA during 2016 have reduced operating expenses at Dulles from the level of expenses set out in the 2016 budget; based on actual incurred expenses through October, operating expenses in 2016 at Dulles are projected to be 5.3% lower than the level in the 2016 budget. Moreover, due to these actual expense reductions at Dulles in 2016 and the reductions achieved in the 2017 MWAA budget preparation process, operating expenses at Dulles Airport are now projected to grow in 2018 by only 2.5%, down from the 3% increase earlier projected.

All told, these reductions in operating expenses at Dulles Airport are projected to total $63.3 million in the 2016-through-2024 period. See DKMG Report, page 3 and attached Table 1. In addition, these expense reductions are projected to reduce the annual cost per enplanement at Dulles in this nine-year period by an average of $0.48, with reductions ranging from $0.30 to $0.58 a year. See DKMG Report, page 3 and attached Table 2.

Component 5: Commonwealth Funding

This Plan component reflects MWAA's receipt of $25 million of Commonwealth Funding in 2017 and another $25 million in 2018. This funding is projected to decrease the cost per enplanement at Dulles by $2.29 in 2017 and by $2.23 in 2018. See DKMG Report, attached Table 2.

Component 6: Increases in Passenger Traffic

Based upon its multiple air service development activities and the projected levels of cost per enplanement in future years at Dulles Airport, MWAA projects annual increases in passenger traffic at the airport using a compounded annual growth rate of 2.1%, starting in 2017 and continuing through 2024. See DKMG Report, page 5. These annual increases in passenger traffic have multiple positive revenue consequences at Dulles which are captured and included in the financial analyses of the Plan components discussed above and, therefore, are not separately stated.

However, the DKMG Report shows, in its attached Table 3, the annual cost per enplanement reductions at Dulles Airport in the 2016-through-2024 period that may be attributed to increases in passenger traffic, and calculates (page 5) the average annual reduction in the cost per enplanement at Dulles in this nine-year period that may be attributed to passenger traffic increases to be $2.08.

Summary

The projected impacts of this Long-Range Plan on the cost per enplanement at Dulles Airport in the 2016-through-2024 period, as projected in the DKMG Report, are shown in the table on the following page.

SUMMARY OF IMPACT OF MWAA LONG-RANGE PLAN ON AIRLINE COST PER ENPLANEMENT (CPE) AT DULLES AIRPORT										
	2016	2017	2018	2019	2020	2021	2022	2023	2024	Average[1]
Dulles CPE[1] without MWAA Plan	$25.55	$26.24	$26.36	$26.38	$26.53	$26.80	$26.11	$25.80	$25.13	Average Annual CPE: $26.10
Value of All MWAA Plan Components[2]	$58.580	$58.963	$55.025	$61.301	$57.069	$49.780	$47.562	$45.626	$41.031	Total Value: $474.9
Reduction in Dulles CPE due to MWAA Plan[3]	$4.80	$7.27	$7.14	$5.12	$4.60	$3.93	$3.77	$3.50	$3.00	Average Annual CPE Reduction: $4.80
Reduced Dulles CPE under MWAA Plan[3]	$20.75	$18.97	$19.22	$21.26	$21.93	$22.87	$22.34	$22.30	$22.12	Average Annual Reduced CPE: $21.31

1/ The derivation of the figures in this row is explained in the DKMG Report, pages 4-5, and is shown in the report's attached Table 2.

2/ Values in this row are stated in millions and reflect the dollar value of revenue increases, cost decreases and other Plan activities exerting downward pressure on the airline cost per enplanement at Dulles Airport in the 2016-through-2024 period. The values do not, however, include Plan Component 5, Commonwealth Funding.

3/ In these two rows, Plan Component 5, Commonwealth Funding, *is* reflected for years 2017 and 2018.

In summary, the MWAA Long-Range Plan, the DKMG Report and the information in the above table address a number of the conditions and requirement established by the General Assembly and relating to MWAA's receipt of Commonwealth Funding in the following manner:

(1) identifying, as required by Item 436(M)(2)(a) of the 2016-2018 Appropriations Act, the "future efforts of the Authority to reduce airline cost per enplanement at [Dulles Airport] using financing efficiency savings, available funds, and future revenues," and demonstrating that these efforts will produce revenue increases and financing and other cost savings in the 2016 through 2024 period "in an amount that meets or exceeds the amount of the [$50 million] appropriation provided in" in Item 436(M) – *as shown in the above table, the total projected value of the MWAA Plan exceeds $474 million through 2024*;

(2) presenting, as required by Item 436(M)(2)(a), "a long-range plan for [the] financial viability of the airport and continued lower levels of cost per enplanement beyond the fiscal year 2016-2018 biennium without additional state support beyond the amounts provided pursuant to § 58.1-[638], Code of Virginia" – *as shown in the above table, under the MWAA Plan, airline cost per enplanement at Dulles Airport is projected to range between $21.26 and $22.87 in the six-year period occurring after the 2016-2018*

biennium, which represent reductions in the annual cost per enplanement during this period ranging from $3,00 to $5.12 when compared with the cost per enplanement projected without the MWAA Plan;

(3) representing, as required by Item 436(M)(2), "an attainable plan for long-term cost reductions" at Dulles Airport which may be used by the Secretary in providing the certification required by Item 437(M)(2) to be given to the General Assembly and the Governor – *the MWAA Plan identifies "long-term cost reductions" and other actions designed to continue the competitiveness of Dulles Airport by maintaining low cost per enplanement levels in the years following the Commonwealth Funding;* and

(4) outlining, as MWAA is required by Item 436(M)(3) to do in its 2016 and 2017 reports to Senate and House Committee Chairmen and the Secretary of Transportation, the "additional measures to be taken by [MWAA] to further reduce cost per enplanement" at Dulles Airport in future years through calendar year 2024 – *the MWAA plan identifies a variety of "additional measures" that, apart from the Commonwealth Funding, will reduce the airline cost per enplanement at Dulles Airport and will maintain lowered cost per enplanement rates in the years following the Commonwealth Funding.*

Exhibit A

Letter Report of DKMG Consulting, LLC

DKMG Consulting LLC

December 1, 2016

Mr. Andrew T. Rountree
Vice President for Finance and Chief Financial Officer
Metropolitan Washington Airports Authority
1 Aviation Circle
Washington, D.C. 20001-6000

Re: **Financial Analysis of the Metropolitan Washington Airports Authority's Long-Range Plan for the Viability of Washington Dulles International Airport and Continued Lower Levels of Airline Cost Per Enplanement**

Dear Mr. Rountree:

DKMG Consulting, LLC (DKMG) is pleased to submit this letter to present our financial analysis associated with the Metropolitan Washington Airports Authority's (MWAA) long-range plan for the viability of Washington Dulles International Airport (Dulles) and continued lower levels of airline cost per enplanement (CPE) beyond the Commonwealth of Virginia 2016-2018 Biennium (the MWAA Plan). In 2016, MWAA developed the MWAA Plan to achieve financing savings, revenue increases, and cost reductions at Dulles with the intent of reducing Dulles's CPE. Since DKMG, formerly MAC Consulting, LLC, prepared the financial analysis included in the Report of the Airport Consultant dated May 31, 2016 for the issuance of MWAA's Airport System Revenue Refunding Bonds Series 2016A (AMT) and Series 2016B (Non-AMT) (2016 ROAC), DKMG was tasked by MWAA to prepare a financial analysis of the MWAA Plan.

The attached **Table 1** presents the financial impacts of the MWAA Plan from January 1, 2016 through December 31, 2024. As shown in the table, the total financing efficiency savings, contribution of available MWAA funds, future revenues, and cost savings that the MWAA Plan makes available toward the reduction of Dulles's CPE are estimated to be approximately $474.9 million from 2016 through 2024. The attached **Table 2** presents the impact of the MWAA Plan in reducing the CPE at Dulles. A summary of the MWAA Plan and its projected financial impact on Dulles's CPE is presented below:

- ***Financing Savings*** – In July 2016, MWAA issued bonds to refund outstanding bonds issued in 2006. In addition, at the request of MWAA's Chief Financial Officer, MWAA's financial advisor, Frasca & Associates, LLC (Frasca), prepared a long-range strategy for the future refunding of outstanding MWAA bonds, which is described in a memorandum prepared by Frasca dated November 10, 2016. A description of the financing savings actually achieved as a result of the 2016 refunding and the savings projected to be achieved as a result of future refundings is as follows:

- 2016 Refunding and Savings – In July 2016, MWAA refunded the Series 2006A Bonds and Series 2006B Bonds at an all in true interest cost of 3.35% and refunded the Series 2006C Bonds at an all in true interest cost of 2.27% to achieve a financing savings of approximately $40.9 million from 2016 through 2024 (see Table 1). These savings are projected to produce an average reduction in Dulles's CPE of $0.31 during that nine-year period, with annual reductions ranging between $0.27 and $0.41 (see Table 2).

- Future Refundings and Savings – MWAA intends on refunding outstanding bonds in 2017, 2018, and 2019, which will not result in the extension of any maturities on the refunded bonds. Frasca calculated the debt service resulting from these proposed refundings using the following assumptions:

Date	Refunded Series	Par Amount ($M)	All-in TIC	Interest Spread
July 2017	2007A, 2007B	$382.9	3.07%	+ 50 bps
July 2018	2008A, 2009C	$389.1	4.02%	+100 bps
July 2019	2009B	$170.1	3.25%	+ 100 bps

* Spread to market rates are as of November 10, 2016.

As shown in Table 1, once these outstanding bonds are refunded, MWAA is estimated to achieve a financing savings of approximately $100.3 million from 2016 through 2024, with the majority of the savings beginning in 2019. In addition, as shown in Table 2, these bonds are projected to produce an average reduction in Dulles's CPE of $1.29 in the six-year period from 2019 through 2024, with annual reductions ranging between $1.15 and $1.36.

- ***Available Funds and Future Revenues*** – In addition to the financing savings, MWAA intends on contributing unrestricted cash, increasing future revenues, and decreasing future expenses to reduce Dulles's CPE as follows:

  - Use of Unrestricted Cash for a Rate Abatement – In the 2016 and 2017 budget, MWAA provided a rate abatement of $7 million and $1.5 million, respectively. These amounts provided a credit to the airlines' rate base in turn lowering Dulles's CPE by approximately $0.65 in 2016 and $0.14 in 2017.

  - Use of Unrestricted Cash Generated at Ronald Reagan National Airport (Reagan National Airport) – Under the 2015 Airline Agreement, MWAA may use its share of Net Remaining Revenues (NRR) generated at Reagan National Airport, as available up to agreed-upon maximum amounts, to reduce airline rentals, fees, and charges at Dulles in the following year. From 2016 through 2024, such maximum amounts are $40 million in

2016 and 2017, $35 million in 2018, $30 million in 2019, and $25 million in 2020 through 2024. This equates to approximately $270 million of NRR from Reagan National Airport being used at Dulles from 2016 to 2024 (see Table 1), which is projected to produce an average annual reduction of $2.60 in Dulles's CPE over this nine-year period, with annual with annual reductions ranging between $1.97 and $3.72 (see Table 2).

- Future Nonairline Revenues – Over the past year, MWAA expanded its ground transportation services, re-competed the advertising concession contracts with more favorable financial terms, and refurbished the concession program at Dulles. As a result, Dulles's re-forecasted 2016 nonairline revenues are 2.4% higher than budget. This increase in revenues has resulted in a higher baseline for nonairline revenues at Dulles in the 2017 budget, which has increased the projections for such revenues for 2018 through 2024.[1] The nonairline revenue increase at Dulles resulting from these changes is estimated to be approximately $55.5 million from 2016 to 2024 (see Table 1), which is projected to produce an average annual reduction in Dulles's CPE of $0.49 during this nine-year period, with annual reductions ranging between $0.44 and $0.75 (see Table 2).

- Cost Reductions – MWAA's 2017 budget handbook directs staff to contain and limit the growth of expenses with the goal of producing a level of budget expenses lower than the level of expenses forecasted in the 2016 ROAC. As a result of this direction, the 2017 budgeted expenses for Dulles are 0.28% higher than the 2016 budgeted expenses. This level of expenses at Dulles is significantly lower than the 2016 ROAC's forecast of 2017 expenses which was 3% higher than the 2016 budgeted expenses. As a result, expenses at Dulles are forecast to grow in 2018 by 2.5% over 2017 and in the 2019 through 2024 period by 3% annually. MWAA's cost reduction measures equate to cost decreases at Dulles of approximately $63.3 million from 2016 through 2024 (see Table 1). The cost reduction measures are projected to produce an average reduction in Dulles's CPE of $0.48 during that nine-year period, with annual reductions ranging from $0.30 to $0.58 (see Table 2).

- ***New Dulles Capital Program Debt Service*** – In 2016, the 2015 Airline Agreement for Dulles was amended to expand the term of the agreement by seven years through December 31, 2024, and to provide for a series of capital projects to be undertaken at Dulles in the expanded seven-year period. The cost of these projects was estimated at $445.6 million, and authorization for the projects, at this cost, has been provided in MWAA's 2017 budget. These projects include utility upgrades to Concourse C/D, capacity enhancements to the international arrivals facility, baggage handling improvements, existing aircraft upgrades to accommodate additional international service, construction of four additional domestic

[1] In general, parking, rental car, and ground transportation revenues are forecasted to grow with originating passengers, terminal concession revenues are forecasted to growth with enplanements, certain aviation revenues are forecasted to increase based on debt service in those areas, and all other revenue is forecasted to grow with inflation.

gates, airfield pavement, passenger conveyance systems, airport-wide utility systems, roads and other support projects. MWAA will seek grant funding where available for the new capital program at Dulles but the projects will be primarily debt-funded, which will in turn increase the airlines' rates and charges. Since MWAA intends to implement these new projects in 2018 through 2025, it was determined that the increased debt service resulting from these projects and its impact on Dulles's CPE should be included in this analysis. Frasca provided the estimated debt service associated with this new debt using the following assumptions:

Date	Purpose	Par Amount ($M)	Interest Rates
July 2018	New money	$92.7	6.00%
July 2020	New money	$151.7	6.00%
July 2022	New money	$272.0	6.00%

The increase in debt service associated with the new capital program is projected to be approximately $63.5 million from 2019 through 2024 (see Table 1). This is projected to produce an average increase in Dulles's CPE of $0.82 during that six-year period, with annual increases ranging from $0.16 and $1.40 (see Table 2).

As earlier indicated, Table 2 presents the impact of the MWAA Plan and its projected financing and other cost decreases, revenue increases, and contributions of MWAA unrestricted cash in reducing the CPE at Dulles. In order to create a base case to properly analyze the CPE impacts of the MWAA Plan, certain assumptions that DKMG made in the 2016 ROAC were removed from the numbers in that report, and an adjusted 2016 ROAC, together with Dulles CPE projections based on that baseline adjusted ROAC, was prepared and used in the analysis summarized in this letter. The derivation of the adjusted 2016 ROAC is shown in Table 2 and includes the following:

- The projection period in the 2016 ROAC was 2017 through 2021, and this analysis goes through 2024. Therefore, Dulles's CPE for 2022 through 2024 is included using the same assumptions as the 2016 ROAC.

- The impacts of the $50 million grant from the Commonwealth of Virginia were backed out of the 2016 ROAC numbers and not included in the adjusted 2016 ROAC to prevent a double count of these funds in this analysis.

- Estimated savings resulting from the Series 2016 refunding bonds were included in the 2016 ROAC. In this analysis, these savings were removed from the 2016 ROAC numbers, and therefore not included in the baseline adjusted 2016 ROAC. The actual savings resulting from the Series 2016 refunding were then used in projecting the CPE impact of the Series 2016 refunding bonds measured against the adjusted 2016 ROAC.

- The impacts of the 2016 Dulles rate abatement and MWAA's use at Dulles of its share of NRR from Reagan National Airport were backed out of the 2016 ROAC to prevent a double count in this analysis, and therefore not included in the baseline adjusted 2016 ROAC. The financial impact of these actions was then analyzed against the adjusted 2016 ROAC to project their impact on the Dulles CPE from 2016 through 2024.

As an example of the results of these adjustments, Dulles's CPE in 2017 increased from $20.18 in the 2016 ROAC to $26.24 in the baseline adjusted 2016 ROAC. The baseline adjusted 2016 ROAC was then used to derive the impacts of the MWAA Plan on Dulles's CPE. Once these impacts are factored into Dulles's CPE, the 2017 CPE decreases by $7.27, from $26.24 to $18.97.

Table 2 also shows that Dulles's CPE in 2019, the year after the Commonwealth of Virginia funding ends, is projected to increase from $19.22 in 2018 to $21.26, which is still significantly lower than the $26.38 it would have been without the contributions of the MWAA Plan.

Table 3 presents the impact of increases in passenger traffic (or enplanements) on Dulles's CPE. For this analysis, Dulles's CPE was calculated holding the passenger traffic numbers at the 2015 levels from 2016 through 2024. This result was compared to Dulles's CPE using the passenger traffic forecasts in the 2016 ROAC, which reflect a compound annual growth rate of 1.9% from 2015 through 2021. The difference in the CPE was then multiplied by enplanements to calculate the dollar impact of the increase in passenger traffic. This impact equates to an average reduction in Dulles's CPE of $2.08 from 2016 through 2024.

In addition to the actions identified in the MWAA Plan, MWAA intends to apply certain Designated Passenger Facility Charges (PFCs) at Dulles, as defined by Thirty-fifth Supplemental Indenture, beyond 2016, the year to which its current commitment extends. These Designated PFCs are used for the payment of PFC-eligible debt service at Dulles, and therefore, lower the debt service included in the airlines rate base. The impact of this has not been included in this analysis; however, it equates to an average of $43 million a year from 2017 through 2024, or an additional $3.50 average reduction to Dulles's CPE.

Finally, MWAA requested a comparison of Dulles's 2015 CPE of $23.67 to the 2016 CPE of $20.75 presented on the last line of Table 2. This comparison is presented below:

Impact on CPE	Variance
Actual 2015 CPE	$23.67
Net increase in debt service *	0.71
Available funds and future revenues	
Use of unrestricted cash for a rate abatement	(0.65)
Airline's share of Dulles's NRR	(2.84)
Cost reductions	(0.14)
Total variance from 2015 to 2016	($2.92)
Estimated 2016 CPE	$20.75

* This amount is the net of previous financing savings (including 2016 refundings) and the increase in debt service is primarily related to the in-line baggage system, airfield panel replacement, and fourth runway maintenance equipment projects coming fully on line in 2016.
** Columns may not add to totals shown because of rounding.

* * * * *

The assumptions and estimates underlying the projections are inherently subject to change and, though considered reasonable when taken as a whole as of this date, are subject to a wide variety of business, economic, and competitive risks and uncertainties that could cause actual results to vary materially from projected results. Accordingly, there can be no assurance that assumptions will be realized, that unanticipated events and circumstances will not occur, and that actual results will not be materially higher or lower than projected results. DKMG has no responsibility to update this letter for events and circumstances occurring after the date of the letter.

Sincerely,

DKMG Consulting, LLC

DKMG Consulting LLC

Table 1

Metropolitan Washington Airports Authority

Financial Analysis of the MWAA Plan

Financing Efficiency Savings and Available Funds

(amounts in 000's)

December 1, 2016

Components of the MWAA Plan *	2016	2017	2018	2019	2020	2021	2022	2023	2024	Sum of 2016 - 2024
Financing Savings										
2016 refunding and savings	($173)	$5,760	$5,768	$5,766	$5,677	$4,518	$4,517	$4,519	$4,517	$40,870
Future refundings and savings	0	774	895	14,953	16,837	16,836	16,838	16,836	16,291	100,259
Subtotal	($173)	$6,534	$6,663	$20,719	$22,513	$21,354	$21,355	$21,355	$20,808	$141,129
Available funds and future revenues										
Use of unrestricted cash for a rate abatement	$7,000	$1,500	$0	$0	$0	$0	$0	$0	$0	$8,500
Use of unrestricted cash generated at Reagan National	40,000	40,000	35,000	30,000	25,000	25,000	25,000	25,000	25,000	270,000
Future nonairline revenues	4,402	5,492	6,767	6,019	6,322	6,454	6,561	6,666	6,782	55,465
Cost reductions	7,351	5,437	6,594	6,797	6,997	7,209	7,429	7,648	7,876	63,339
Subtotal	$58,753	$52,429	$48,361	$42,816	$38,319	$38,663	$38,990	$39,314	$39,658	$397,303
New Dulles capital program debt service	$0	$0	$0	($2,234)	($3,763)	($10,237)	($12,783)	($15,042)	($19,435)	($63,494)
Total	$58,580	$58,963	$55,025	$61,301	$57,069	$49,780	$47,562	$45,626	$41,031	$474,938
Cumulative	$58,580	$117,543	$172,568	$233,869	$290,939	$340,719	$388,281	$433,907	$474,938	

* The MWAA Plan's components related to the Commonwealth of Virginia funding and increases in passenger traffic are not presented in this table.

** Columns may not add to totals shown because of rounding.

Table 2

Metropolitan Washington Airports Authority

Financial Analysis of the MWAA Plan

Impacts of the MWAA Plan on Dulles's CPE

December 1, 2016

Airline Cost per Enplanement	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
2014 ROAC CPE	$29.86	$30.89	$31.12	$31.12	N/A	N/A	N/A	N/A	N/A	N/A
2015 ROAC CPE	$24.60	$24.43	$24.70	$25.63	$25.75	$26.01	N/A	N/A	N/A	N/A
2016 ROAC CPE	$23.67	$21.15	$20.18	$20.87	$23.63	$24.28	$24.62	N/A	N/A	N/A
CPE projections not included in 2016 ROAC	N/A	N/A	N/A	N/A	N/A	N/A	N/A	$23.66	$23.01	$22.02
Commonwealth funding	0.00	0.00	2.29	2.23	0.00	0.00	0.00	0.00	0.00	0.00
Estimated 2016 financing savings	0.00	0.03	0.12	0.12	0.12	0.11	0.08	0.39	0.77	1.14
Use of unrestricted cash for a rate abatement	0.00	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Use of unrestricted cash generated at Reagan National	0.00	3.72	3.66	3.13	2.62	2.14	2.09	2.05	2.01	1.97
Total adjustments to the 2016 ROAC CPE	$0.00	$4.41	$6.06	$5.49	$2.75	$2.25	$2.18	$26.11	$25.80	$25.13
Adjusted 2016 ROAC CPE (Base Case)	$23.67	$25.55	$26.24	$26.36	$26.38	$26.53	$26.80	$26.11	$25.80	$25.13
Commonwealth funding	$0.00	$0.00	($2.29)	($2.23)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Financing Savings										
2016 refunding and savings	0.00	0.02	(0.39)	(0.41)	(0.41)	(0.39)	(0.35)	(0.30)	(0.29)	(0.27)
Future refundings and savings	0.00	0.00	(0.07)	(0.07)	(1.23)	(1.36)	(1.34)	(1.33)	(1.31)	(1.15)
Available funds and future revenues										
Use of unrestricted cash for a rate abatement	0.00	(0.65)	(0.14)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Use of unrestricted cash generated at Reagan National	0.00	(3.72)	(3.66)	(3.13)	(2.62)	(2.14)	(2.09)	(2.05)	(2.01)	(1.97)
Future nonairline revenues	0.00	0.13	(0.44)	(0.75)	(0.51)	(0.49)	(0.55)	(0.67)	(0.63)	(0.48)
Cost reductions	0.00	(0.58)	(0.30)	(0.55)	(0.51)	(0.51)	(0.45)	(0.45)	(0.45)	(0.53)
New Dulles capital program debt service	0.00	0.00	0.00	0.00	0.16	0.30	0.87	1.02	1.20	1.40
Total cost minimization factors less 2016 ROAC	$0.00	($4.80)	($7.27)	($7.14)	($5.12)	($4.60)	($3.93)	($3.77)	($3.50)	($3.00)
CPE after applying the components of the MWAA Plan *	$23.67	$20.75	$18.97	$19.22	$21.26	$21.93	$22.87	$22.34	$22.30	$22.12

* These CPE's are calculated by adding/subtracting the components of the MWAA Plan to the adjusted 2016 ROAC as presented in this table.

** Columns may not add to totals shown because of rounding.

Table 3

Metropolitan Washington Airports Authority

Financial Analysis of the MWAA Plan

Impacts of Passenger Growth on Dulles Airport's CPE

December 1, 2016

Airline Cost per Enplanement	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
CPE after applying the MWAA Plan (see Table 2)	$23.67	$20.75	$18.97	$19.22	$21.26	$21.93	$22.87	$22.34	$22.30	$22.12
Plus: impact of passenger traffic growth	$0.00	($0.48)	$0.51	$0.97	$1.57	$2.13	$2.76	$3.23	$3.76	$4.29
CPE without the impact of passenger traffic growth	$23.67	$20.26	$19.48	$20.19	$22.83	$24.06	$25.63	$25.56	$26.06	$26.41

Exhibit B

Memorandum of Frasca & Associates

FRASCA & ASSOCIATES, LLC
521 MADISON AVENUE, SEVENTH FLOOR
NEW YORK, NY 10022
TEL: 212 355-4050

TO: Andrew Rountree

FROM: Frasca & Associates, LLC

SUBJECT: **Washington Dulles International Airport Future Financings**

DATE: November 10, 2016

FRASCA modeled bond transactions including future new money issues anticipated by the Airports Authority to be required to fund Capital Construction Program (CCP) projects through 2022 as well as potential future refunding issues which may be possible to refund outstanding debt associated with IAD for economic savings.

The following tables summarize the anticipated new money transactions that were used for the 2016 Report of the Airport Consultant (ROAC).

Date	Purpose	IAD Par	DCA Par	Interest Rates
July 2017	New Money	$58.1 M	$280.9 M	6.00%
July 2018	New Money	$46.1 M	$420.9 M	6.00%
July 2020	New Money	$9.6 M	$177.0 M	6.00%

Subsequent to the ROAC, the Airports Authority and the airlines agreed to additional capital projects. We modeled new money transactions to fund additional costs. The estimated net debt service (net of capitalized interest) for IAD from 2018 through 2024 for these additional new money transactions is $63.5 million.

Date	Purpose	IAD Par	DCA Par	Interest Rates
July 2018	New Money	$92.7 M	$0	6.00%
July 2020	New Money	$151.7 M	$0	6.00%
July 2022	New Money	$272.0 M	$0	6.00%

Consistent with the Airports Authority's recent past practices (as well as general practice in the airport industry), we assumed a conservative interest rate, 6.00%, for these bond issues.

FRASCA also modeled future refunding transactions for bonds with call dates through 2019.

Date	Refunded Series	Refunding Par	Average Life	Interest Rate Spread 1>	All-in TIC
July 2017	2007A, 2007B	$382.9 M	7.4 years	+50 bps	3.07%
July 2018	2008A, 2009C	$389.1 M	11.1 years	+100 bps	4.02%
July 2019	2009B	$170.1 M	6.4 years	+100 bps	3.25%

1> Spread to market rates as of November 10, 2016.

The future refunding opportunities were not included in the prior ROAC forecasts. For purposes of this analysis, we assumed a spread to current market interest rates to account for future uncertainty to the date of the refunding. The refundings were generally structured to produce uniform savings in each year between 2019 and 2024. The primary exception to this is that the 2017 refunding, specifically for the Series 2007B bonds, were structure to increase savings in 2019 in order to smooth the increase in IAD CPE in that year.

The following graph shows the annual savings results for the refundings from 2017 through 2024, split between IAD and DCA. The estimated savings at IAD from 2017 through 2024 is $100.3 million