# JANUARY 2019 FINANCIAL ADVISOR REPORT – THE AVIATION ENTERPRISE

#### INTRODUCTION

The Finance Committee has requested that the Financial Advisor provide a monthly report on the status of the financing of the Capital Construction Program (CCP) and any related issues concerning the Airports Authority's Aviation Enterprise capital financing activities. The Financial Advisor presents this Monthly Report, focusing on the specific debt management projects underway, the debt policy framework guiding these projects and the financing of the CCP in general.

#### **DISCUSSION SUMMARY**

This paper is organized as follows:

- I. Executive Summary
- II. Action Items
  - A. Request for Proposals to Provide Underwriting Services
- III. Informational Items
  - A. Preliminary 2019 Plan of Finance
- IV. Monthly Update
  - A. CCP: Actuals vs. Projections
  - B. Short-term Liquidity Forecast
  - C. Variable Rate Programs
  - D. Swaps Monthly Swap Performance

#### **Exhibits**

- A. Airports Authority's Capital Construction Program
- B. Airport System Revenue Bonds
  - Summary of Bonds Outstanding
  - Refunding Monitor
- C. Variable Rate Programs
  - Overview
  - Historical Performance
- D. Swap Program
  - Airports Authority Swap Profile
  - Historic Performance of Swaps

## I. EXECUTIVE SUMMARY

#### **Action Items**

Request for Proposals to Provide Underwriting Services. On October 18, 2018, the Request for Proposals (RFP) seeking qualifications from investment banking firms to provide underwriting services was distributed. The Technical Evaluation Committee (TEC) evaluated the proposals, and a recommendation will be provided in a separate staff paper.

#### **Informational Items**

→ *Preliminary 2019 Plan of Finance*. The 2019 Plan of Finance is expected to include the issuance of new money bonds to fund capital projects and the issuance of refunding bonds to current refund up to \$183.3 million of Series 2009B Bonds. Additional details will be provided at a future Finance Committee meeting.

#### II. ACTION ITEMS

#### (II.A) Request for Proposals to Provide Underwriting Services

On October 18, 2018, the Request for Proposals (RFP) seeking qualifications from investment banking firms to provide underwriting services was distributed. The Technical Evaluation Committee (TEC) evaluated the proposals, and a recommendation will be provided in a separate staff paper.

#### III. INFORMATIONAL ITEMS

#### (III.A) Preliminary 2019 Plan of Finance

The 2019 Plan of Finance is expected to include:

- Issuing new money bonds to fund capital project; the amount is to be determined by the project cash flows.
- Issuing refunding bonds to current refund up to \$183.3 million of Series 2009B Bonds. The current refunding can be issued as early as July 3, 2019.
- Evaluating the swap and variable rate debt portfolios for opportunities to decrease risk and reduce costs.

Additional details will be provided at a future Finance Committee meeting.

#### IV. MONTHLY UPDATES

#### (IV.A) CCP: Actuals vs. Projections

**Exhibit A** sets forth the major CCP projects underway at the Airports Authority, as well as historical CCP actual versus projected expenditures. The CCP expenditures for 2018 are budgeted at \$342.7 million including construction and capitalized interest costs. Expenditures in November 2018 totaled \$13.8 million. At the time of the writing of this report, expenditures for December 2018 were not available.

2018 CCP Projections vs. Actuals (\$ millions)						
	General Ledger Actual	Original Projection	Variance	Variance (%)		
18-Jan	\$13.30	\$19.39	(\$6.09)	(31.4%)		
18-Feb	5.30	19.25	(13.95)	(72.5%)		
18-Mar	8.50	20.56	(12.06)	(58.7%)		
18-Apr	10.60	23.50	(12.90)	(54.9%)		
18-May	11.40	25.63	(14.23)	(55.5%)		
18-Jun	26.20	28.54	(2.34)	(8.2%)		
18-Jul	8.50	30.28	(21.78)	(71.9%)		
18-Aug	20.50	31.48	(10.98)	(34.9%)		
18-Sep	12.70	32.57	(19.87)	(61.0%)		
18-Oct	12.20	35.90	(23.70)	(66.0%)		
18-Nov	13.80	37.13	(23.33)	(62.8%)		
18-Dec		38.43				
2018 Totals (Thru November)	\$143.00	\$304.23	(\$161.23)	(53.0%)		

#### (IV.B) Short-Term Liquidity Forecast

The following (including the table and chart) is based on information provided to the Financial Advisor by Finance Staff.

At the beginning of November 2018, the Airports Authority had \$407.2 million of cash-on-hand and \$200 million of additional available liquidity in the form of undrawn CP Series Two capacity. At the time of the writing of this report, balances for the beginning of December 2018 were not available.

Short-term Liquidity Forecast (\$ millions)						
Beginning Cash of Month Available CP Available to Draw (End Bal) PFCs Grants Expenditures						
Nov-18	407.20	200.00	0.00	1.93	37.13	
Dec-18	372.00	200.00	0.00	1.93	38.43	



<sup>&</sup>lt;sup>1</sup> Cash-on-hand includes proceeds of the Series 2015, 2017A and 2018A Bonds and Funds 63 and 64.

#### (IV.C) Variable Rate Programs

In addition to approximately \$740.4 million of outstanding variable rate debt, the Airports Authority can issue up to \$200 million of CP Two Notes which are currently "on-the-shelf."

Outstanding unhedged variable rate debt of \$222.6 million represents approximately 5.0 percent of the Airports Authority's \$4.4 billion of outstanding indebtedness.

Gross Variable Rate Exposure					
Fixed Rate Debt Percentage:					
Fixed Rate Debt	\$3,684,120,000				
2009D VRDOs (Hedged)	113,700,000				
2010C2 VRDOs (Hedged)	89,830,000				
2010D Index Floater (Hedged)	145,200,000				
2011A VRDOs (Hedged)	169,065,000				
Fixed Rate	\$4,201,915,000	95.0%			
Variable Rate Debt Percentage:					
2003D VRDOs	51,625,000				
2010C1 VRDOs	51,675,000				
2011B Index Floater	119,315,000				
CP Notes	0				
Variable Rate	\$222,615,000	5.0%			
Combined Total	\$4,424,530,000	100.0%			

The Airports Authority's current unrestricted cash balances of \$951.5 million in short-term investments can be netted against variable rate debt exposure to produce a net variable rate exposure. Currently, unrestricted cash balances exceed the amount of unhedged short-term debt.

**Exhibit C-2** illustrates the current year rolling three-month average spreads to SIFMA of the Airports Authority's variable rate programs, as well as historic spreads to SIFMA by quarter.

#### (IV.D) Swaps – Monthly Swap Performance

**2002 Swap:** Under the terms of the swap agreement, the Airports Authority pays to the counterparty a fixed rate of 4.445 percent on the outstanding notional amount of the swap. In return, the Airports Authority receives from the counterparty 72 percent of one-month LIBOR based upon the outstanding notional amount of the swap. The 2002 Swap originally hedged the Series 2002C Bonds and now hedges the 2011A-2 which refunded the Series 2002C Bonds in full. On October 1, 2015, the Series 2011A-2 was converted from Index Floaters to VRDOs. **Exhibit D-2** provides the historical monthly cash flow of the 2002 swaps associated with the hedged VRDOs.

**2009** Swaps: Under the terms of the swap agreements, the Airports Authority pays to the counterparties an average fixed rate of 4.099 percent on the outstanding notional amount of the swap. In return, the Airports Authority receives from the counterparties 72 percent

of one-month LIBOR based upon the outstanding notional amount of its respective swaps. The 2009 Swap originally hedged the Series 2009A Bonds and 2009D Bonds. The Series 2009A Bonds were partially refunded by the Series 2010C2 Bonds and the remaining portion was fully refunded by the Series 2011A-3 Bonds. The 2009 swaps now hedge the 2011A-3, 2009D and 2010C2 VRDOs. On October 1, 2015, the Series 2011A-3 Bonds were converted from Index Floaters to VRDOs. **Exhibit D-2** provides the historical monthly cash flow of the 2009 swaps associated with the hedged VRDOs.

**2010 Swap:** Under the terms of the swap agreement, the Airports Authority pays to the counterparty a fixed rate of 4.112 percent on the outstanding notional amount of the swap. In return, the Airports Authority receives from the counterparty 72 percent of one-month LIBOR based upon the outstanding notional amount of the swap. The 2010 Swap hedges the Series 2010D Index Floaters. **Exhibit D-2** provides the historical monthly cash flow of the 2010 swaps associated with the hedged Index Floaters.

**2011 Swap:** Under the terms of the swap agreement, the Airports Authority pays to the counterparty a fixed rate of 3.862 percent on the outstanding notional amount of the swap. In return, the Airports Authority receives from the counterparty 72 percent of one-month LIBOR based upon the outstanding notional amount of the swap. The 2011 Swap hedges the Series 2011A-1 Bonds. On October 1, 2015, the Series 2011A-1 Bonds were converted from Index Floaters to VRDOs. **Exhibit D-2** provides the historical monthly cash flow of the 2011 swaps associated with the hedged VRDOs.

# Exhibit A Airports Authority's CCP

## Major projects under construction at Reagan National include:

- New Concourse Enabling Projects
- New Concourse
- Sanitary Sewer Main Reconstruction Terminal C to North Pump Station
- Terminal C Bag Room Renovations
- Secure National Hall
- Secure National Hall Enabling Projects
- Hold Bay 4 Reconstruction and Reconfiguration

#### Major projects under construction at Dulles International include:

- Reconstruction of Taxiway J
- IAD Taxilane B Reconstruction and Widening, West Section
- Parking Access and Revenue Control System (PARCS)

Historical CCP Projections vs. Actuals (2003-2017) (\$millions)

Historical CCF Projections vs. Actuais (2003-2017) (\$\text{simmons})							
General Ledger	Projection <sup>2</sup>	Variance	Variance (%)				
Actual							
\$282.7	\$321.9	(\$39.2)	(12.2%)				
\$349.3	\$349.9	(\$0.6)	(0.2%)				
\$555.8	\$574.4	(\$18.6)	(3.2%)				
\$672.2	\$713.2	(\$41.0)	(5.7%)				
\$719.4	\$689.7	\$29.7	4.3%				
\$537.7	\$672.8	(\$135.1)	(20.1%)				
\$349.8	\$474.2	(\$124.3)	(26.2%)				
\$220.2	\$327.3	(\$107.1)	(32.7%)				
\$167.4	\$299.4	(\$131.9)	(44.1%)				
\$118.8	\$274.6	(\$155.8)	(56.7%)				
\$152.3	\$235.9	(\$83.6)	(35.4%)				
\$113.0	\$209.5	(\$96.5)	(46.1%)				
\$83.3	\$248.8	(\$165.5)	(66.5%)				
\$66.3	\$193.6	(\$127.3)	(65.8%)				
\$104.8	\$356.7	(\$251.9)	(70.6%)				
	General Ledger Actual \$282.7 \$349.3 \$555.8 \$672.2 \$719.4 \$537.7 \$349.8 \$220.2 \$167.4 \$118.8 \$152.3 \$113.0 \$83.3 \$66.3	General Ledger Actual         Projection²           \$282.7         \$321.9           \$349.3         \$349.9           \$555.8         \$574.4           \$672.2         \$713.2           \$719.4         \$689.7           \$537.7         \$672.8           \$349.8         \$474.2           \$220.2         \$327.3           \$167.4         \$299.4           \$118.8         \$274.6           \$152.3         \$235.9           \$113.0         \$209.5           \$83.3         \$248.8           \$66.3         \$193.6	General Ledger Actual         Projection²         Variance           \$282.7         \$321.9         (\$39.2)           \$349.3         \$349.9         (\$0.6)           \$555.8         \$574.4         (\$18.6)           \$672.2         \$713.2         (\$41.0)           \$719.4         \$689.7         \$29.7           \$537.7         \$672.8         (\$135.1)           \$349.8         \$474.2         (\$124.3)           \$220.2         \$327.3         (\$107.1)           \$167.4         \$299.4         (\$131.9)           \$118.8         \$274.6         (\$155.8)           \$152.3         \$235.9         (\$83.6)           \$113.0         \$209.5         (\$96.5)           \$83.3         \$248.8         (\$165.5)           \$66.3         \$193.6         (\$127.3)				

<sup>&</sup>lt;sup>2</sup> Historical projections for 2003 do not reflect periodic revisions. 2003: the last revision for 2003 projected a total of \$287.5 million.

<sup>&</sup>lt;sup>3</sup> Projection reflects December 2005 budget amendment.

# Exhibit B-1 **Airport System Revenue Bonds Summary of Bonds Outstanding**

General Airport Revenue Bonds ("GARBs") are secured by the pledge of Net Airport Revenues Security:

Lien: Ratings:

Moody's Aa3 (Stable) S&P AA- (Stable) Fitch AA- (Stable)

		Original	Current			Credit	
Series	Date	Par Amount	Par Amount	Tax Status	Coupon	Enhancement*	Purpose
2003D	10/01/03	150,000,000	51,625,000	AMT	Variable	TD LOC	New Money
2009B	04/01/09	236,825,000	194,835,000	Non-AMT	Fixed	BHAC (partial)	New Money
2009C	07/02/09	314,435,000	7,305,000	Non-AMT	Fixed	None	Refund PFC Notes
2009D**	07/02/09	136,825,000	113,700,000	Non-AMT	Variable	TD LOC	Refund PFC Notes
2010A	07/28/10	348,400,000	299,405,000	Non-AMT	Fixed	None	New Money/OMP
2010B	07/28/10	229,005,000	115,380,000	AMT	Fixed	None	Current Refunding
2010C***	09/22/10	170,000,000	141,505,000	C1 (AMT), C2 (Non-AMT)	Variable	Sumitomo LOC	Current Refunding
2010D**	09/22/10	170,000,000	145,200,000	Non AMT	Variable	Wells Fargo Index Floaters	New Money/Current Refunding
2010F-1	11/17/10	61,820,000	61,820,000	Non-AMT	Fixed	None	OMP
2011A**	09/21/11	233,635,000	169,065,000	AMT	Variable	Sumitomo LOC	New Money/Current Refunding
2011B	09/21/11	207,640,000	119,315,000	AMT	Variable	U.S. Bank Index Floaters	New Money/Current Refunding
2011C	09/29/11	185,390,000	130,575,000	AMT	Fixed	None	Current Refunding
2011D	09/29/11	10,385,000	7,585,000	Non-AMT	Fixed	None	Current Refunding
2012A	07/03/12	291,035,000	267,130,000	AMT	Fixed	None	Current Refunding
2012B	07/03/12	20,790,000	3,745,000	Non-AMT	Fixed	None	Advance Refunding
2013A	07/11/13	207,205,000	203,095,000	AMT	Fixed	None	New Money/Current Refunding
2013B	07/11/13	27,405,000	17,360,000	Taxable	Fixed	None	Current Refunding
2013C	07/11/13	11,005,000	11,005,000	Non-AMT	Fixed	None	Advance Refunding
2014A	07/03/14	539,250,000	456,705,000	AMT	Fixed	None	Current Refunding
2015A	01/29/15	163,780,000	163,780,000	AMT	Fixed	None	Refunding/Call Extension
2015B	07/15/15	279,235,000	258,145,000	AMT	Fixed	None	New Money/Current Refunding
2015C	07/15/15	35,975,000	27,975,000	Non-AMT	Fixed	None	Current Refunding/CP Takeout
2015D	07/15/15	30,490,000	30,490,000	Taxable	Fixed	None	Current Refunding
2016A	07/07/16	362,655,000	362,655,000	AMT	Fixed	None	Current Refunding
2016B	07/07/16	23,370,000	23,370,000	Non-AMT	Fixed	None	Current Refunding
2017A	07/07/17	522,135,000	483,330,000	AMT	Fixed	None	New Money/Current Refunding
2018A	07/03/18	558,430,000	558,430,000	AMT	Fixed	None	New Money/Current Refunding
Total		5.527.120.000	4.424.530.000				

<sup>\*</sup> Approximately 2% of the GARB portfolio is additionally secured through bond insurance. \*\* All of the Series 2009D, 2010D and 2011A are subject to a floating-to-fixed rate swap.

*** \$89.8 million of the Series 2010C is subject to a floating-to-fixed rate swap.
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As % of Total Portfolio				
Insurer Percentage				
BHAC	2.2%			
Uninsured 97.8%				

As % of Ins	ured Portfolio
Insurer	Percentage
BHAC	100.0%

Average Fixed Rate Debt

# Exhibit B-2 Airport System Revenue Bonds Refunding Monitor

#### **Refunding Candidates – Governmental Purpose**

There are no Governmental Purpose refunding candidates at this time.

# **Refunding Candidates – Private Activity**

There are no current refunding opportunities at this time.

The Series 2009B Bonds may not be advance refunded with tax exempt bonds. As a benchmark for evaluating refunding strategies, the table below shows the results of a hypothetical tax exempt advance refunding.

Series	Callable Par/ Maturities	Range of Interest Rates	Call Date	Call Premium	Net PV Savings
2009B PAB*	\$183,295,000 ('20-'29)	4.125%-5.25%	10/01/19	0% (at par)	\$23.5 mm 12.8%

<sup>\*</sup> Refunding bonds are assumed to be 35%/65% AMT/Non-AMT

#### **Refunding Candidates – Taxable**

There are no taxable refunding candidates at this time.<sup>4</sup>

Below are the refunding guidelines previously accepted by the Board:

Time Between Call Date and	Traditional Financing Products	Non-Traditional Financing Products	
Issuance of Refunding Bonds	Minimum PV % Savings	Minimum PV % Savings	
0 to 90-days (Current)	Greater of Call Premium or 1%	Call Premium + 1% - 2%	
90-days to 1-year	Call Premium + 1%	Call Premium + 2% - 3%	
1-year to 2-years	Call Premium + 2%	Call Premium + 3% - 4%	
> 2-years	Call Premium + 3%	Call Premium + 4% - 5%	

<sup>&</sup>lt;sup>4</sup> The Series 2013B and Series 2015D Bonds are Taxable and advance refundable. However, the Series 2013B Bonds can only be called prior to maturity with a make whole call provision, and the Series 2015D Bonds, given the length of time to the call date, are not a viable refunding candidate at this time.

## Exhibit C-1 Variable Rate Programs Overview

# Summary of Dealers, Credit Enhancement and Bank Facilities

## **Details of Dealers**

Dealer	Program/ Series	Amount (\$MM)	Remarketing Fees
BofA Merrill Lynch	CP: Series Two*	Up to \$200	0.05%
TD	VRDO: 2003D1 Bonds	\$51.625	0.05%
BofA Merrill Lynch	VRDO: 2009D Bonds**	\$113.700	0.06 – 0.08%
Barclays	VRDO: 2010C Bonds	\$141.505	0.06%
Wells Fargo	Index Floater: 2010D Bonds	\$145.200	None
RBC	VRDO: 2011A Bonds	\$169.065	0.05%
U.S. Bank	Index Floater: 2011B Bonds	\$119.315	None

<sup>\*</sup> The CP Series One has been suspended and the CP Series Two is authorized to be issued up to \$200 million effective March 6, 2014.

#### **Details of Facilities**

Bank Provider	Facility	Program/ Series	Amount (\$MM)	Fee/ Spread (bps)	Expiration Date
ICBC	LOC	CP: Series Two	\$200.000	17.0	February 25, 2022
TD Bank	LOC	2003D1	\$51.625	26.0	October 4, 2022
TD Bank	LOC	2009D	\$113.700	35.0	February 28, 2021
Sumitomo	LOC	2010C	\$141.505	34.0	September 21, 2020
Wells Fargo	Index Floater	2010D	\$145.200	37.0*	September 22, 2020
Sumitomo	LOC	2011A	\$169.065	30.0	October 4, 2022
U.S. Bank	Index Floater	2011B	\$119.315	36.0*	April 1, 2020

<sup>\*</sup> Fixed spread to 80 percent of LIBOR Index

<sup>\*\*</sup> The Series 2009D Bonds in a daily mode have a 0.08 percent remarketing fee and those bonds in a weekly mode have a 0.06 percent remarketing fee.

#### Exhibit C-2 Variable Rate Programs Historical Performance

The following tables illustrate (i) rolling three-month average spreads to SIFMA and (ii) rolling 12-month average spreads to SIFMA <u>including</u> credit and remarketing fees. At the time of the writing of this report, variable interest rates for December 2018 were not available.

2018 Interest Rates (quarterly)

Quarter	2003D1 TD Weekly <sup>5</sup>	2009D1 BofA Weekly	2009D2 BofA Daily	2010C1 Barclays Weekly <sup>6</sup>	2010C2 Barclays Weekly	2010D Wells Index	2011A RBC Weekly <sup>7</sup>	2011B US Bank Index	CP 2 BofA <sup>8</sup>	SIFMA
12-month	0.475%	0.398%	0.363%	0.422%	0.388%	0.530%	0.363%	0.537%		1.376%
Rolling Average										
Jan 18 – Mar 18	0.493%	0.409%	0.355%	0.424%	0.400%	0.509%	0.365%	0.504%		1.206%
Apr 18 – Jun 18	0.452%	0.388%	0.347%	0.418%	0.387%	0.494%	0.359%	0.486%		1.466%
Jul 18 – Sep 18	0.704%	0.384%	0.331%	0.423%	0.380%	0.697%	0.365%	0.727%		1.351%
Sep 18 -Nov 18	0.419%	0.403%	0.418%	0.426%	0.377%	0.592%	0.372%	0.562%		1.573%

**2004 – 2017 Historical Interest Rates** (annually)

2004 -	201/ 11tst	oricai m	iterest M	aies (ann	uaiiy)					
Year	2003D1	2009D1	2009D2	2010C1	2010C2	2010D	2011A	2011B	CP 2	SIFMA
2017	0.245%	0.401%	0.379%	0.415%	0.404%	0.270%	0.357%	0.270%		0.84%
2016	0.245%	0.431%	0.401%	0.408%	0.401%	0.264%	0.343%	0.258%		0.41%
2015	0.708%	0.685%	0.700%	0.688%	0.680%	0.434%	0.773%	0.429%		0.03%
2014	0.761%	0.684%	0.703%	0.783%	0.780%	0.621%	0.881%	0.666%	0.597%	0.05%
2013	0.724%	0.662%	0.676%	0.707%	0.709%	0.696%	0.866%	0.749%	1.347%	0.09%
2012	0.415%	0.671%	0.682%	0.624%	0.629%	0.754%	0.828%		1.339%	0.16%
2011	0.405%	0.648%	0.668%	0.599%	0.606%	0.745%			1.468%	0.17%
2010	0.413%	1.243%	1.307%						0.323%	0.26%
2009	0.390%								0.791%	0.40%
2008	2.079%								0.116%	2.21%
2007	0.649%								0.281%	3.62%
2006	0.474%								0.381%	3.45%
2005	0.364%								0.306%	2.47%
2004	0.438%								0.258%	1.24%

<sup>&</sup>lt;sup>5</sup> On October 1, 2018, the 2003D-1 Bonds were converted from Wells Fargo Index Floaters to weekly VRDOs remarketed by TD. On October 1, 2015, Wells Fargo purchased the 2003D-1 Bonds as Index Floaters. On December 18, 2012, Bank of America purchased the 2003D-1 Bonds as Index Floaters. On April 16, 2009, Wells Fargo took over the remarketing of the 2003D-1 Bonds from Goldman Sachs.

<sup>6</sup> On September 22, 2015, the 2010C1 was converted from 2-day to weekly VRDOs.

<sup>&</sup>lt;sup>7</sup> On October 1, 2015, the 2011A was converted from Wells Fargo Index Floaters to weekly VRDOs remarketed by RBC.

<sup>&</sup>lt;sup>8</sup> On July 15, 2015, the Commercial Paper Series Two was refunded in its entirety.

The following tables illustrate (i) rolling three-month average spreads to SIFMA, and (ii) rolling 12-month average spreads to SIFMA <u>excluding</u> credit and remarketing fees. At the time of the writing of this report, variable interest rates for Decmeber 2018 were not available.

**2018 Interest Rates** (quarterly)

Quarter	2003D1 TD Week <sup>9</sup>	2009D1 BofA Weekly	2009D2 BofA Daily	2010C1 Barclays Week <sup>10</sup>	2010C2 Barclays Weekly	2010D Wells Index	2011A RBC Week <sup>11</sup>	2011B US Bank Index	CP 2 BofA <sup>12</sup>	SIFMA
12-month	0.112%	-0.012%	-0.067%	0.022%	-0.012%	0.166%	0.029%	0.181%		1.376%
Rolling Average										
Jan 18 – Mar 18	0.113%	-0.001%	-0.075%	0.024%	0.000%	0.141%	0.035%	0.143%		1.206%
Apr 18 – Jun 18	0.072%	-0.022%	-0.083%	0.018%	-0.013%	0.124%	0.029%	0.126%		1.466%
Jul 18 – Sep 18	0.324%	-0.026%	-0.099%	0.023%	-0.020%	0.327%	0.034%	0.367%		1.351%
Sep 18 -Nov 18	0.085%	-0.007%	-0.012%	0.026%	-0.023%	0.222%	0.029%	0.202%		1.573%

**2004 – 2017 Historical Interest Rates** (annually)

				,	27					
Year	2003D1	2009D1	2009D2	2010C1	2010C2	2010D	2011A	2011B	CP 2	SIFMA
2017	-0.070%	-0.009%	-0.051%	0.015%	0.004%	-0.048%	0.027%	-0.046%		0.84%
2016	-0.069%	-0.002%	-0.032%	0.009%	0.002%	-0.060%	0.014%	-0.061%		0.41%
2015	0.102%	-0.005%	-0.010%	0.012%	0.005%	0.109%	0.072%	0.109%		0.03%
2014	0.061%	-0.006%	-0.007%	0.003%	0.000%	0.060%	0.061%	0.019%	0.040%	0.05%
2013	0.047%	-0.004%	-0.010%	-0.003%	-0.001%	0.046%	0.046%	-0.001%	0.144%	0.09%
2012	0.054%	0.021%	-0.017%	-0.007%	-0.001%	0.007%	0.008%		0.189%	0.16%
2011	0.055%	0.004%	-0.033%	-0.033%	-0.024%	-0.013%			0.315%	0.17%
2010	0.063%	-0.014%	-0.000%						0.113%	0.26%
2009	0.040%								0.581%	0.40%
2008	1.673%								-0.094%	2.21%
2007	0.239%								0.032%	3.62%
2006	-0.026%								-0.099%	3.54%
2005	-0.046%								-0.084%	2.47%
2004	0.028%								-0.012%	1.24%

January 16, 2019

<sup>&</sup>lt;sup>9</sup> On October 1, 2018, the 2003D-1 Bonds were converted from Wells Fargo Index Floaters to weekly VRDOs remarketed by TD. On October 1, 2015, Wells Fargo purchased the 2003D-1 Bonds as Index Floaters. On December 18, 2012, Bank of America purchased the 2003D-1 Bonds as Index Floaters. On April 16, 2009, Wells Fargo took over the remarketing of the 2003D-1 Bonds from Goldman Sachs.
<sup>10</sup> On September 22, 2015, the 2010C1 was converted from 2-day to weekly VRDOs.

<sup>&</sup>lt;sup>11</sup> On October 1, 2015, the 2011A was converted from Wells Fargo Index Floaters to weekly VRDOs remarketed by RBC.

<sup>&</sup>lt;sup>12</sup> On July 15, 2015, the Commercial Paper Series Two was refunded in its entirety.

# Exhibit D-1 Swap Program Airports Authority Swap Profile

The table below summarizes the Airports Authority's current swap portfolio. All of the Airports Authority's swaps require payment of a fixed rate by the Airports Authority to the counterparty and the receipt of a variable rate by the Airports Authority based upon 72 percent of LIBOR.

Trade Date	Effective Date	Termination Date ("final maturity")	Swap Providers	Ratings Moody's/S&P/ Fitch	Outstanding Notional Amount (\$millions)	Hedged Series	Current Termination Value (\$millions) <sup>13</sup>	Fixed Rate
07/31/01	08/29/02	10/01/21	Bank of America	Aa3/A+/A+	\$18.3	2011A-2	(\$0.8)	4.445%
06/15/06	10/01/09	10/01/39	JPMorgan Chase Bank of America	Aa3/A+/AA- Aa3/A+/A+	\$157.9 <u>\$91.4</u> \$249.3	2011A-3 2009D 2010C2	(\$32.0) (\$18.5) (\$50.5)	4.099%
06/15/06	10/01/10	10/01/40	Wells Fargo	Aa2/A+/AA-	\$145.2	2010D	(\$30.9)	4.112%
09/12/07	10/01/11	10/01/39	Wells Fargo	Aa2/A+/AA-	<u>\$105.0</u>	2011A-1	<u>(\$17.1)</u>	3.862%
				Aggregate Swaps	\$517.8		(\$99.4)	

<sup>&</sup>lt;sup>13</sup> Amounts as of November 30, 2018; A negative value represents a payment by the Airports Authority to the counterparty if the swap is terminated in the current market; a positive value represents a receipt by the Airports Authority if the swap is unwound in the current market.

# Exhibit D-2 Swap Program Swap Effective Interest Rate to-date and Monthly Performance

**2002 Swap:** The Airports Authority's 2002 Swap is a fixed-payor interest rate swap. Under the 2002 Swap, (a) the Airports Authority pays a fixed rate of interest, 4.445 percent, to the swap counterparty; and (b) the swap counterparty pays the Airports Authority a variable rate of interest equal to 72 percent of one-month LIBOR. The variable rate received from the counterparty is designed to closely correlate to the interest rate the Airports Authority pays on the underlying variable rate bonds, thereby creating essentially fixed rate debt ("synthetic" fixed rate debt). The Swap Agreement was dated July 31, 2001, and became effective August 29, 2002. The 2002 Swap counterparty is Bank of America. The 2002 Swap hedges the 2011A-2. The swap previously hedged the Series 2002C Bonds until these bonds were refunded by the 2011A-2 Bonds. On October 1, 2015, the Series 2011A-2 was converted from Index Floaters to VRDOs.

**2009 Swap:** The Airports Authority's 2009 Swap is a fixed-payor interest rate swap. Under the 2009 Swap: (a) the Airports Authority pays a fixed rate of interest, 4.099 percent, to the swap counterparty; and (b) the swap counterparty pays the Airports Authority a variable rate of interest equal to 72 percent of one-month LIBOR, thereby creating synthetic fixed rate debt. The Swap Agreement was dated June 15, 2006, and became effective on October 1, 2009. The 2009 Swap counterparties were Bear Stearns and Bank of America. However, Bear Stearns was bought by JP Morgan in March 2008. The 2009 Swap hedges the Series 2011A-3 Bonds, Series 2009D Bonds and the Series 2010C2 Bonds. The swap previously hedged the Series 2009A Bonds until these bonds were refunded by the 2011A-3 Bonds. On October 1, 2015, the Series 2011A-3 was converted from Index Floaters to VRDOs.

**2010 Swap:** The Airports Authority's 2010 Swap is a fixed-payor interest rate swap. Under the 2009 Swap: (a) the Airports Authority pays a fixed rate of interest, 4.112 percent, to the swap counterparty; and (b) the swap counterparty pays the Airports Authority a variable rate of interest equal to 72 percent of one-month LIBOR, thereby creating synthetic fixed rate debt. The Swap Agreement was dated June 15, 2006, and became effective on October 1, 2010. The 2010 Swap counterparty is Wells Fargo. The 2010 Swap hedges the Series 2010D Index Floaters.

**2011 Swap:** The Airports Authority's 2011 Swap is a fixed-payor interest rate swap. Under the 2011 Swap, (a) the Airports Authority pays a fixed rate of interest, 3.862 percent, to the swap counterparty; and (b) in return, the swap counterparty pays the Airports Authority a variable rate of interest equal to 72 percent of one-month LIBOR, thereby creating synthetic fixed rate debt. The Swap Agreement was dated September 12, 2007, and became effective October 1, 2011. The 2011 Swap counterparty is Wells Fargo. The 2011 Swap hedges the 2011A-1. On October 1, 2015, the Series 2011A-1 was converted from Index Floaters to VRDOs.

1.59%

5.52%

5.52%

The following table presents the 72 percent of one-month LIBOR rate received from the counterparties, the average monthly interest rate on the hedged variable rate bonds paid by the Airports Authority, and the resulting effective all-in interest rate on the swap.

		Hedge	ed Variab	le Rate <b>E</b>	ebt and S	Swaps		
			2002 S	wap (Rate 4	.445%)	2009 S	wap (Rate 4	.099%)
Month	1-M LIBOR	72% 1-M LIBOR	Average All-In Interest Rate	Effective Interest Rate	All-In Effective Rate to Date	Average All-In Interest Rate	Effective Interest Rate	All-In Effective Rate to Date
Jan 2018	1.56%	1.12%	1.68%	5.01%	4.82%	1.66%	4.63%	4.80%
Feb 2018	1.58%	1.14%	1.40%	4.70%	4.82%	1.43%	4.38%	4.80%
Mar 2018	1.77%	1.27%	1.61%	4.78%	4.82%	1.67%	4.49%	4.80%
Apr 2018	1.89%	1.36%	2.07%	5.16%	4.83%	2.11%	4.85%	4.80%
May 2018	1.93%	1.39%	1.79%	4.84%	4.83%	1.75%	4.45%	4.79%
Jun 2018	2.05%	1.47%	1.63%	4.60%	4.82%	1.67%	4.29%	4.79%
Jul 2018	2.08%	1.50%	1.44%	4.39%	4.81%	1.38%	3.98%	4.78%
Aug 2018	2.07%	1.49%	1.84%	4.79%	4.81%	1.88%	4.49%	4.78%
Sep 2018	2.15%	1.55%	1.86%	4.76%	4.81%	1.89%	4.44%	4.77%
Oct 2018	2.28%	1.64%	1.94%	4.75%	4.81%	1.95%	4.41%	4.77%
Nov 2018	2.31%	1.66%	2.03%	4.81%	4.81%	2.05%	4.48%	4.77%
Historical Data:								
2017	1.10%	0.79%	1.20%	4.85%	4.81%	1.23%	4.54%	4.82%
2016	0.49%	0.35%	0.75%	4.82%	4.67%	0.81%	4.54%	4.84%
2015	0.20%	0.14%				0.71%	4.66%	4.91%
2014	0.16%	0.11%				0.78%	4.77%	4.95%
2013	0.19%	0.14%				0.78%	4.74%	4.99%
2012	0.24%	0.17%				0.82%	4.75%	5.06%
2011	0.23%	0.17%				0.87%	4.80%	5.21%
2010	0.27%	0.20%				1.41%	5.31%	5.35%

2009

0.24%

0.17%

**Hedged Variable Rate Debt and Swaps** 

Heuged Variable Rate Debt and Swaps											
		-	<u>2010 Swap (Rate 4.112%)</u>				wap (Rate 3.	.862%)			
Month	1-M LIBOR	72% 1-M LIBOR	Average All-In Interest Rate	Effective Interest Rate	All-In Effective Rate to Date	Average All-In Interest Rate	Effective Interest Rate	All-In Effective Rate to Date			
Jan 2018	1.56%	1.12%	1.73%	4.72%	4.72%	1.68%	4.42%	4.25%			
Feb 2018	1.58%	1.14%	1.64%	4.61%	4.67%	1.40%	4.12%	4.24%			
Mar 2018	1.77%	1.27%	1.78%	4.62%	4.65%	1.61%	4.20%	4.24%			
Apr 2018	1.89%	1.36%	1.88%	4.63%	4.65%	2.07%	4.57%	4.25%			
May 2018	1.93%	1.39%	1.92%	4.64%	4.64%	1.79%	4.26%	4.25%			
Jun 2018	2.05%	1.47%	2.01%	4.65%	4.65%	1.63%	4.02%	4.25%			
Jul 2018	2.08%	1.50%	2.03%	4.65%	4.65%	1.44%	3.80%	4.23%			
Aug 2018	2.07%	1.49%	2.03%	4.65%	4.65%	1.84%	4.15%	4.23%			
Sep 2018	2.15%	1.55%	2.09%	4.65%	4.65%	1.86%	4.24%	4.23%			
Oct 2018	2.28%	1.64%	2.19%	4.66%	4.65%	1.94%	4.16%	4.23%			
Nov 2018	2.31%	1.66%	2.22%	4.67%	4.65%	2.03%	4.23%	4.23%			
Historical Data:											
2017	1.10%	0.79%				1.20%	4.27%	4.24%			
2016	0.49%	0.35%				0.76%	4.26%	4.09%			